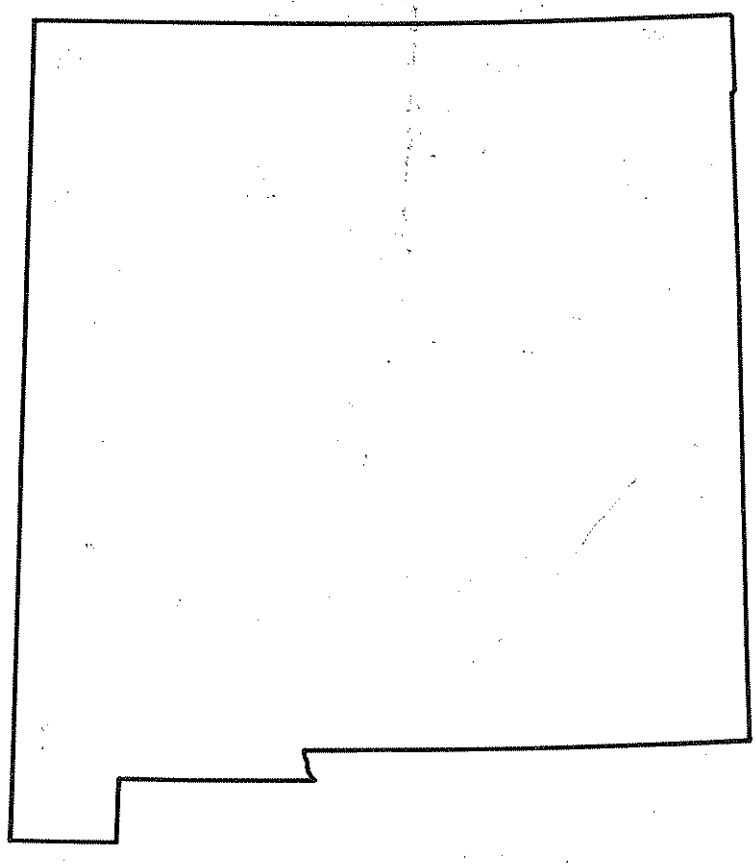
Water Resources Data New Mexico Water Year 1981



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NM-81-1
Prepared in cooperation with the State of New Mexico
and with other agencies

CALENDAR FOR WATER YEAR 1981

1980

OCTOBER

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

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

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			

1981

JANUARY

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

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

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

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

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

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

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	

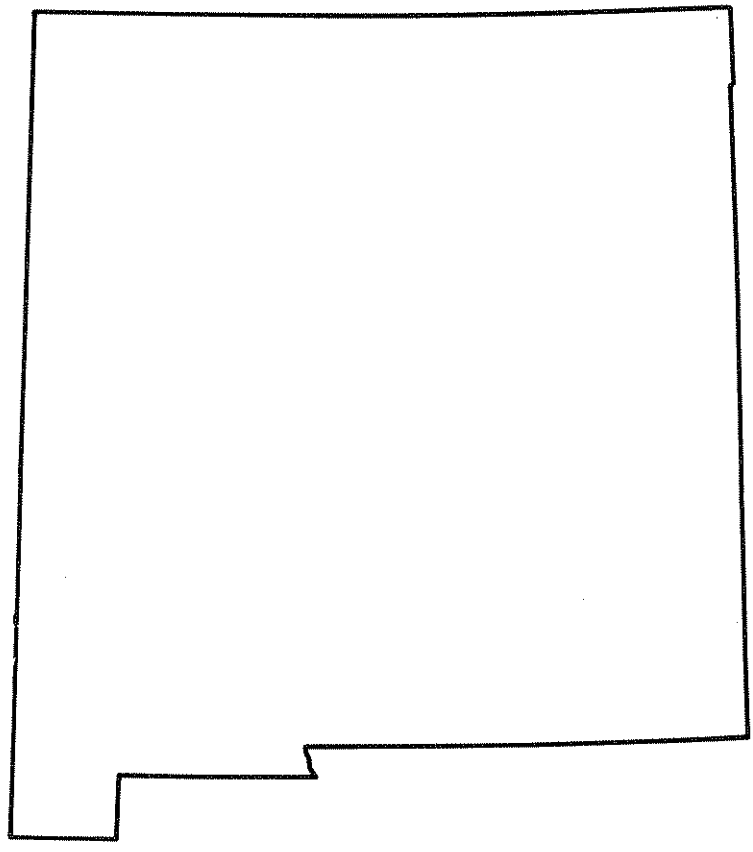
AUGUST

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

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			

Water Resources Data
New Mexico
Water Year 1981



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NM-81-1
Prepared in cooperation with the State of New Mexico
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

JAMES G. WATT, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information on the
water program in New Mexico write to
District Chief, Water Resources Division
U.S. Geological Survey
505 Marquette NW, Room 720
Albuquerque, New Mexico 87102

1982

PREFACE

This report was prepared by personnel of the New Mexico district of the Water Resources Division of the U.S. Geological Survey under the supervision of James F. Daniel, District Chief, and Alfred Clebsch, Jr., Regional Hydrologist, Central Region. It was done in cooperation with various water agencies in the State of New Mexico.

This report is one of a series issued for each State. General direction for the series is by Philip Cohen, Chief Hydrologist, U.S. Geological Survey, and Robert Dingman, Assistant Chief Hydrologist for Scientific Publications and Data Management.

50272-101

REPORT DOCUMENTATION PAGE	1. REPORT NO. USGS/WRD/HD-82/002	2.	3. Recipient's Accession No.

4. Title and Subtitle Water Resources Data for New Mexico, Water Year 1981	5. Report Date September 1982 6.
7. Author(s)	8. Performing Organization Rept. No. USGS-WRD-NM-80-1
9. Performing Organization Name and Address U.S. Geological Survey, Water Resources Division 505 Marquette Street, NW, Room 720 Albuquerque, New Mexico 87102	10. Project/Task/Work Unit No. 11. Contract(C) or Grant(G) No. (C) (G)
12. Sponsoring Organization Name and Address U.S. Geological Survey, Water Resources Division 505 Marquette Street, NW, Room 720 Albuquerque, New Mexico 87102	13. Type of Report & Period Covered Annual - Oct. 1, 1980 to Sept. 30, 1981 14.

15. Supplementary Notes

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

16. Abstract (Limit: 200 words)

Water resources data for the 1981 water year for New Mexico consist of records of discharge and water quality of streams; stage, contents and water quality of lakes and reservoirs; and water levels and water quality in wells and springs. This report contains discharge records for 227 gaging stations; stage and contents for 25 lakes and reservoirs; water quality for 89 gaging stations, 91 observation wells. Also included are 135 crest-stage partial-record stations. Additional water data were collected at various sites, not involved in the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in New Mexico.

17. Document Analysis a. Descriptors

*New Mexico, *Hydrologic data, *Surface water, *Water quality, Flow rates, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels, Water analyses.

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

18. Availability Statement No restrictions on distribution This report may be purchased from: National Technical Information Service Springfield, Virginia 22161	19. Security Class (This Report) UNCLASSIFIED 20. Security Class (This Page) UNCLASSIFIED	21. No. of Pages 704 22. Price

(See ANSI-Z39.18) See Instructions on Reverse OPTIONAL FORM 272 (4-77) (Formerly NTIS-35)

CONTENTS

	Page
Preface	III
List of gaging stations, in downstream order, for which records are published	VI
Introduction	1
Cooperation	1
Hydrologic conditions	2
Definition of terms	5
Downstream order and station numbers	11
Numbering system for wells, springs, and miscellaneous sites	11
Special networks and programs	11
Explanation of stage and water-discharge records	12
Collection and computation of data	12
Accuracy of field data and computed results	14
Other data available	14
Explanation of water-quality records	14
Collection and examination of data	14
Water analysis	15
Water temperature	15
Sediment	15
Biological data	16
Parameter codes	16
Explanation of ground-water level records	16
Collection of data	16
Publications on techniques of water-resources investigations	17
Gaging station records	21
Discharge at partial-record stations and miscellaneous sites	575
Low-flow partial-record stations	575
Crest-stage partial-record stations	575
Miscellaneous sites	588
Analyses of samples collected at water-quality partial-record stations	590
Analyses of samples collected at miscellaneous sites	594
Chemical analyses of atmospheric precipitation	630
Ground-water records	632
Ground-water levels	632
Quality of ground water	656
Index	700

ILLUSTRATIONS

Figure 1.	Comparison of monthly mean discharges (1977-81 water years) to 30-year median (1951-80 water years)	3
2.	Ground-water-level trends for last 20 years or period of record	4
3	System for numbering wells, springs, and miscellaneous sites	11
4.	Map of New Mexico showing location of hydrologic units	18
5.	Map of New Mexico showing location of surface-water gaging stations	19
6.	Map of New Mexico showing location of water-quality stations	20
7.	Map of New Mexico showing location of partial-record stations	574
8.	Map of New Mexico showing location of observation wells	631

TABLES

Calendar for 1981 water year.....inside front cover
Factors for converting English units to International units (SI).....inside back cover

[Letter after station name designates type of data: (b) biological, (c) chemical, (d) discharge, (e) elevation, stage or contents, (m) microbiological, (s) sediment, (t) water temperature]

LOWER MISSISSIPPI RIVER BASIN — Page

Mississippi River:
ARKANSAS RIVER BASIN
Arkansas River:
Dry Cimarron River:
Penabete Creek:
Bennett Spring near Capulin (d) 21
Cimarron River near Kenton, OK (d) 22
Canadian River near Hebron (cd) 23
Chicorica Creek:
Lake Maloya near Raton (e) 25
Lake Alice near Raton (e) 25
Una de Gato Creek below Throttle Dam (cds) 26
Chicorica Creek near Hebron (c) 28
Eagle Tail ditch near Maxwell (d) 29
Vermejo River near Dawson (cds) 30
Vermejo Ditch near Colfax (d) 33
Moreno Creek (head of Cimarron River) at Eagle Nest (d) 34
Eagle Nest Lake:
Cieneguilla Creek near Eagle Nest (d) 35
Sixmile Creek near Eagle Nest (d) 36
Eagle Nest Lake near Eagle Nest (e) 37
Cimarron River below Eagle Nest Dam (cds) 38
Cimarron River near Cimarron (cds) 40
Ponil Creek near Cimarron (cds) 43
Rayado Creek at Sauble Ranch, near Cimarron (cds) 45
Cimarron River at Springer (d) 47
Canadian River near Taylor Springs (d) 48
Mora River at La Cueva (cds) 49
Mora River near Golondrinas (cds) 51
Coyote Creek near Golondrinas (d) 53
Mora River near Shoemaker (d) 54
Canadian River near Sanchez (cdms) 55
Conchas Lake:
Conchas River at Variadero (d) 59
Bell Ranch Canal below Conchas Dam (d) 60
Conchas Canal below Conchas Dam (d) 60
Conchas Lake at Conchas Dam (e) 61
Ute Reservoir:
Ute Creek near Logan (d) 62
Ute Reservoir near Logan (cem) 64
Canadian River at Logan (d) 67
Revuelto Creek near Logan (cds) 68
Canadian River above New Mexico-Texas State line (bcms) 71

WESTERN GULF OF MEXICO BASINS
RIO GRANDE BASIN
Rio Grande near Lobatos, CO (bcdmt) 76
Rio Grande at Colorado-New Mexico State line (d) 88
Costilla Creek above Costilla Dam (d) 89
Costilla Reservoir:
Casias Creek near Costilla (d) 90
Santistevan Creek near Costilla (d) 91
Costilla Reservoir near Costilla (e) 92
Costilla Creek below Costilla Dam (d) 93
Costilla Creek near Amalia (d) 94
Costilla Creek near Costilla (d) 95
Costilla Creek below diversion dam, at Costilla (d) 96
Costilla Creek at Garcia, CO (d) 97
Principal diversions from Costilla Creek (d) 98
Rio Grande near Cerro (cdms) 99
Rio Grande above Red River, near Cerro (cm) 103
Red River below Zwergle damsite, near Red River (cms) 104
Red River at Molycorp Mine, near Red River (cms) 107
Red River near Questa (cdms) 110
Cabresto Creek near Questa (cdms) 115

WESTERN GULF OF MEXICO BASINS Page
RIO GRANDE BASIN - continued
Rio Grande--Continued
Red River below Questa (cms) 118
Red River above State Fish Hatchery, near Questa (cms) 121
Red River below Fish Hatchery, near Questa (cdms) 124
Red River at mouth, near Questa (cms) 128
Rio Grande above Rio Hondo, at Dunn Bridge (cms) 130
Rio Hondo near Valdez (d) 133
Arroyo Hondo at Arroyo Hondo (cdms) 134
Rio Grande near Arroyo Hondo (d) 138
Rio Pueblo de Taos near Taos (d) 139
Rio Lucero near Arroyo Seco (d) 140
Rio Pueblo de Taos:
Rio Grande del Rancho near Talpa (d) 141
Rio Pueblo de Taos below Los Cordovas (d) 142
Rio Grande below Taos Junction Bridge, near Taos (cdms) 143
Embudo Creek at Dixon (cds) 146
Rio Grande at Embudo (d) 148
Rio Grande above San Juan Pueblo (d) 149
Rio Chama near La Puente (d) 150
Willow Creek:
Azotea Creek:
Azotea tunnel at outlet, near Chama (d) 151
Willow Creek above Heron Reservoir, near Los Ojos (d) 152
Heron Reservoir:
Horse Lake Creek above Heron Reservoir, near Los Ojos (d) 153
Heron Reservoir near Los Ojos (e) 154
Willow Creek below Heron Dam (d) 155
El Vado Reservoir near Tierra Amarilla (e) 156
Rio Chama below El Vado Dam (d) 157
Rio Chama above Abiquiu Reservoir (cds) 158
Abiquiu Reservoir near Abiquiu (e) 160
Rio Chama below Abiquiu Dam (cds) 161
Rio Ojo Caliente at La Madera (d) 163
Rio Chama near Chamita (cds) 164
Diversions from Rio Chama (d) 166
Santa Cruz River at Cundiyo (d) 168
Rio Nambe (head of Pojoaque River):
Nambe Falls Reservoir near Nambe (e) 169
Rio Nambe below Nambe Falls Dam, near Nambe (d) 170
Rio Grande at Otowi Bridge, near San Ildefonso (bcdmst) 171
Rito de los Frijoles in Bandelier National Monument (ds) 187
Cochiti Lake:
Santa Fe River:
McClure Reservoir near Santa Fe (e) 189
Santa Fe River near Santa Fe (d) 190
Nichols Reservoir near Santa Fe (e) 191
Santa Fe River above Cochiti Lake (cds) 192
Cochiti Lake near Cochiti Pueblo (cem) 195
Rio Grande below Cochiti Dam (cdst) 199
Galisteo Reservoir near Cerrillos (e) 204
Galisteo Creek below Galisteo Dam (d) 205
Rio Grande at San Felipe (cdms) 206
Jemez River below East Fork, near Jemez Springs 211
Rio Guadalupe at Box Canyon near Jemez 212
Jemez River near Jemez (cds) 213
Jemez Canyon Reservoir near Bernalillo (e) 216
Jemez River below Jemez Canyon Dam (cd) 217
North Floodway Channel near Alameda (d) 219
Rio Grande at Albuquerque (cdst) 220
Tijeras Arroyo near Albuquerque (d) 228
Tijeras Arroyo below south diversion, near Albuquerque (d) 229
Rio Grande at Isleta (cms) 230
Rio Grande conveyance channel near Bernardo (d) 234
Rio Grande floodway near Bernardo (cdst) 235
Bernardo interior drain near Bernardo (d) 241
San Pablo Creek near Cuba (d) 242
Rio Puerco above Arroyo Chico, near Guadalupe (cds) 243
Arroyo Chico:
Torrion Arroyo:
Papers Wash near Star Lake Trading Post (cds) 245
Arroyo Chico near Guadalupe (cds) 247
Bluewater Creek (head of Rio San Jose):
Bluewater Lake near Bluewater (e) 251
San Mateo Creek near San Mateo (d) 252

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

WESTERN GULF OF MEXICO BASINS — Page

RIO GRANDE BASIN--Continued

Rio Grande--Continued

Rio San Jose at Grants (d) 253
Grants Canyon at Grants (d) 254
Rio San Jose near Grants (cdms) 255
Rio Paguate below Jackpile Mine near Laguna (d) 258
Rio San Jose at Correo (d) 259
Rio Puerco near Bernardo (cdst) 260
Rio Salado near San Acacia (cds) 265
Socorro main canal north at San Acacia (d) 267
Rio Grande conveyance channel at San Acacia (cdmst) 268
Rio Grande floodway at San Acacia (cdmst) 275
Rio Grande conveyance channel at San Marcial (bcdmst) 281
Rio Grande floodway at San Marcial (bcdmst) 290
Elephant Butte Reservoir at Elephant Butte (e) 299
Rio Grande below Elephant Butte Dam (bcdms) 300
Caballo Reservoir near Arrey (e) 305
Rio Grande below Caballo Dam (d) 306
Rio Grande at El Paso, TX (bcdmst) 307
Rio Grande below Old Fort Quitman, TX (bcmst) 314
Pecos River:
Rio Mora near Terrero (cdms) 319
Pecos River near Pecos (d) 323
Pecos River near Anton Chico (d) 324
Gallinas Creek near Montezuma (d) 325
Gallinas River near Colonias (d) 326
Pecos River above Canon de Uta, near Colonias (d) 327
Pecos River above Santa Rosa Lake (cds) 328
Santa Rosa Lake:
Los Esteros Creek above Santa Rosa Lake (d) 331
Los Esteros Creek tributary above Santa Rosa Lake (d) 332
Santa Rosa Lake near Santa Rosa (e) 333
Pecos River below Santa Rosa Dam (d) 335
Pecos River at Santa Rosa (cdst) 336
Pecos River near Puerto de Luna (cdms) 341
Lake Sumner near Fort Sumner (e) 345
Pecos River below Sumner Dam (bcdms) 347
Fort Sumner main canal near Fort Sumner (d) 354
Pecos River near Acme (cds) 355
Rio Ruidoso (head of Rio Hondo):
F. Herrera ditch S. at Hollywood (d) 359
Rio Ruidoso at Hollywood (d) 360
Eagle Creek below South Fork, near Alto (d) 361
Eagle Creek near Alto (d) 362
Rio Hondo at Diamond A Ranch, near Roswell (d) 363
Two Rivers Reservoir near Roswell (e) 364
Rio Hondo below Diamond A Dam, near Roswell (d) 365
Rocky Arroyo above Two Rivers Reservoir (d) 366
Rocky Arroyo below Rocky Dam, near Roswell (d) 366
Rio Hondo at Roswell 367
Pecos River near Hagerman (d) 368
Rio Felix at old highway bridge, near Hagerman (d) 369
Pecos River near Lake Arthur (d) 370
Pecos River near Artesia (cdmst) 371
Rio Penasco at Dayton (d) 378
Pecos River (Kaiser Channel) near Lakewood (d) 379
Lake McMillan:
Fourmile Draw near Lakewood (d) 380
Lake McMillan near Lakewood (e) 381
Pecos River below McMillan Dam (d) 383
Pecos River above Seven Rivers, near Lakewood (d) 384
South Seven Rivers near Lakewood (d) 385
Pecos River below Major Johnson Springs, near Carlsbad (cd) 386
Rocky Arroyo at highway bridge, near Carlsbad (d) 388
Pecos River at damsite 3, near Carlsbad (d) 389
Lake Avalon:
Carlsbad main canal at head, near Carlsbad (d) 390
Lake Avalon near Carlsbad (e) 391
Pecos River below Avalon Dam (d) 393
Pecos River at Carlsbad (ct) 394
Dark Canyon Draw at Carlsbad (d) 396
Pecos River below Dark Canyon Draw, at Carlsbad (cdsm) 397
Black River above Malaga (d) 402
Pecos River near Malaga (cdmst) 403
Pecos River at Pierce Canyon Crossing, near Malaga (cdmst) 409
Pecos River at Red Bluff (bcdmst) 415
Delaware River near Red Bluff (d) 423

WESTERN GULF OF MEXICO BASINS Page
RIO GRANDE BASIN--Continued
Rio Grande--Continued
Red Bluff Reservoir near Orla, TX (e) 424
Pecos River near Orla, TX (cdt) 425

MIMBRES RIVER BASIN
Mimbres River at Mimbres (bcdms) 428

TULAROSA VALLEY
Rio Tularosa near Bent (bcdms) 432

COLORADO RIVER BASIN
SAN JUAN RIVER BASIN
San Juan River near Carracas, CO (d) 438
Navajo Reservoir:
Piedra River near Arboles, CO (d) 439
Los Pinos River at La Boca, CO (d) 440
Spring Creek at La Boca, CO (d) 441
Navajo Reservoir near Archuleta (e) 442
San Juan River near Archuleta (cds) 443
Canon Largo Wash near Blanco (cds) 446
San Juan River at Hammond Bridge near Bloomfield (cds) 450
Gallegos Canyon Wash near Farmington (cds) 455
Animas River near Cedar Hill (d) 458
Animas River at Farmington (bcdmst) 459
San Juan River at Farmington (cdst) 467
La Plata River at Colorado-New Mexico State line (d) 472
La Plata River tributary near Farmington (cds) 473
La Plata River near Farmington (cds) 477
San Juan River near Fruitland (cds) 481
Shumway Arroyo near Fruitland (cds) 485
Shumway Arroyo near Waterflow (cdms) 486
Chaco Wash (head of Chaco River):
Chaco Wash near Star Lake Trading Post (cds) 491
Chaco Wash at East Boundary at Chaco Canyon National Monument (cds) 496
Fajada Wash at Chaco Canyon National Monument (cds) 498
Chaco Wash at Chaco Canyon National Monument (cds) 500
Gallo Wash at Chaco Canyon National Monument (d) 502
Chaco Wash near Pueblo Bonito at Chaco Canyon National Monument (cds) 503
Ah-shi-sle-pah Wash near Kimbeto (cds) 505
De-na-zin Wash near Bisti Trading Post (cds) 509
Black Springs Wash near Mexican Springs (cds) 512
Hunter Wash at Bisti Trading Post (cds) 514
Teec-ni-di-tso Wash near Burnham (d) 518
Brimhall Wash:
Burnham Wash near Burnham (cds) 519
Chaco River near Burnham (cds) 521
Chaco River near Waterflow (cds) 524
San Juan River at Shiprock (bcdmst) 531
San Juan River at Four Corners, CO (bcdms) 542
San Juan River near Bluff, UT (d) 547
LITTLE COLORADO RIVER BASIN
Zuni River:
Rio Nutria near Ramah (d) 548
Zuni River above Black Rock Reservoir (cds) 549
Puerco River near Church Rock (d) 551
Puerco River at Gallup (cds) 553

GILA RIVER BASIN
Gila River near Gila (d) 556
Mogollon Creek near Cliff (cdms) 557
Mangas Creek below Mangas Springs (cs) 561
Gila River near Redrock (bcdms) 563
Gila River below Blue Creek, near Virden (d) 568
San Francisco River near Reserve (d) 569
Tularosa River above Aragon (d) 570
San Francisco River near Alma (d) 571
San Francisco River near Glenwood (cds) 572

WATER-RESOURCES DATA FOR NEW MEXICO, WATER YEAR 1981

INTRODUCTION

Water-resources data for the current year for New Mexico consist of records of discharge and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report contains discharge records for 227 gaging stations; stage and contents for 25 lakes and reservoirs; water quality for 89 gaging stations, 6 partial-record stations, 1 reservoirs, 44 springs, and 293 wells; and water levels at 91 observation wells. Also included are 135 crest-stage partial-record stations. Additional water data were collected at various sites, not involved in the systematic data collection program, and are published as miscellaneous measurements. These data represent that part 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 or stage of streams, and contents or stage of lakes and reservoirs were first 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 then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, Virginia 22202.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a state-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released in separate reports. Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an official Survey report on a state-boundary basis. These official Survey reports carry an identification number consisting of the two letter State abbreviation, the last two digits of the water year, and the volume number. For example, the 1976 report is identified as "U.S. Geological Survey Water-Data Report NM-76-1." Water-data reports, on a water-year basis, are for sale by the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161.

COOPERATION

The U.S. Geological Survey and organizations of the State of New Mexico have had cooperative agreements for the systematic collection of streamflow records since 1930, and for water-quality records since 1940. Organizations that assisted in collecting data through cooperative agreement with the survey are:

Office of State Engineer of New Mexico, S. E. Reynolds, State Engineer.

New Mexico Interstate Stream Commission, S. E. Reynolds, Secretary.

Pecos River Commission, H. M. Babcock, Federal representative and Chairman;
J. L. Cathey, Commissioner for New Mexico;
L. A. Vick, Commissioner for Texas.

New Mexico State Highway Department, J. J. Hewett, Chief Administrator.

Costilla Creek Compact Commission, S. E. Reynolds, Commissioner for New Mexico;
J. A. Danielson, Commissioner for Colorado.

Albuquerque Metropolitan Arroyo Flood Control Authority, R. E. Leonard,
Executive Engineer.

Financial assistance for the collection of water resources data published in this report was furnished by the Corps of Engineers, U.S. Army, for 32 gaging stations; by the Bureau of Reclamation, U.S. Department of the Interior, for 6 gaging stations; by the Bureau of Indian Affairs, U.S. Department of Interior, for 6 gaging stations; by the Bureau of Land Management, U.S. Department of Interior for 5 gaging stations; by the National Park Service, U.S. Department of Interior, for 1 gaging station; by the Federal Highway Administration, U.S. Department of Transportation, for research study on small drainage areas; and by the U.S. Environmental Protection Agency for several water-quality stations.

Assistance in the form of funds or services was also furnished by the New Mexico Environmental Improvement Division, the city of Ruidoso, and the Carlsbad Irrigation District.

Some records have been collected and computed by contractors in accordance with U.S. Geological Survey specifications and under Geological Survey quality control.

Organizations that furnished data are recognized in the station description.

SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow

As is common in New Mexico, streamflow varied considerably during the 1981 water year with respect to both time and geographic location. The variations are related to differences in precipitation, temperature, topography, and geology. The monthly mean discharges for 1977-81 water years and the median of monthly mean discharges for 1951-80 water years at four index stations are shown in figure 1.

The pattern of runoff in most natural streams was similar throughout New Mexico during the 1981 water year with the notable exception of the Delaware River in the extreme southeastern corner of the State. The water year began with the discharge in most streams in the less-then-normal or deficient range (in the lowest 25 percent of record for 1951-80 water years). This less-than-normal flow continued in most streams until the summer "rainy season" started in July. For the period July-September, most streams in the State had greater than normal discharge. During the low-flow period, the flow of the Rio Grande at the streamflow-gaging station 08276500 (Rio Grande below Taos Junction Bridge) was the lowest for any April since the collection of records began in July 1925. In contrast to the low flows in most of New Mexico, the flow of the Delaware River near Red Bluff (station 08408500) was greater then normal for the entire water year and was excessive (in the highest 25 percent of record for 1951-80 water years) from November through April.

The combined storage in the 12 major reservoirs decreased 721,600 acre-feet during the water year. The contents totaled 2,773,000 acre-feet on September 30, 1981.

Water-Quality Conditions

Dissolved-solids concentrations at most NASQAN sations were greater during the 1981 water year than during the 1979 and 1980 water years. The dissolved-solids concentration of the Rio Grande at El Paso decreased from 1979 to 1980 and increased from 1980 to 1981. The dissolved-solids concentration of the Pecos River at Red Bluff increased from 1979 to 1980 and decreased from 1980 to 1981.

Water discharge volumes in the State were much less during 1981 than during 1980; consequently suspended-sediment loads were less. The following table of four selected sites illustrates this condition:

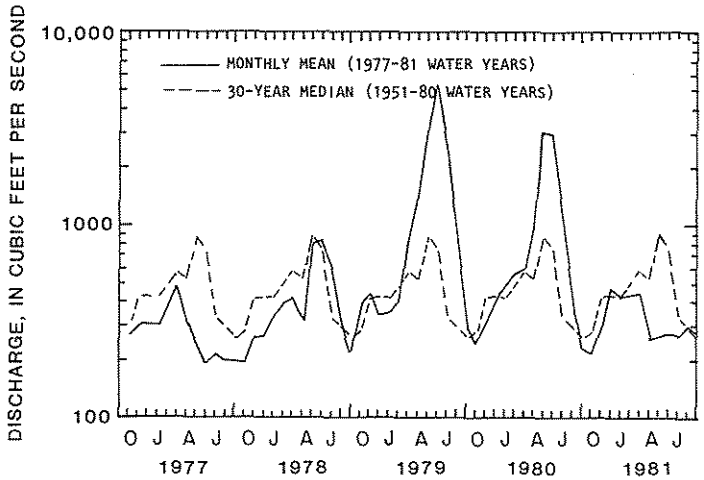
Station	Annual discharge for indicated water year, in cubic feet per second		Annual suspended-sediment load, for indicated water year in tons	
	1980	1981	1980	1981
Rio Grande at Otowi	750,966	282,402	1,538,125	436,468
Rio Grande at Albuquerque	712,073	217,354	759,946	393,773
Pecos River near Artesia	66,052	31,608	296,889	218,110
San Juan River at Shiprock	947,083	477,762	4,684,561	1,883,805

Ground-Water Levels

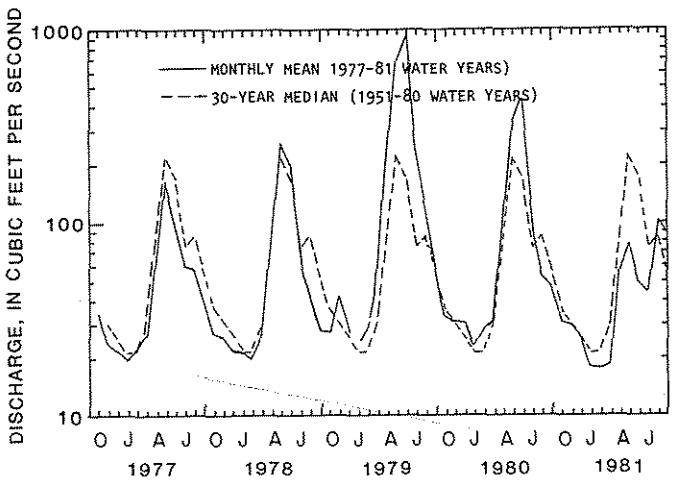
Ground-water levels are measured periodically in a network of about 5,000 observation wells to record changes in ground-water storage. About 1,000 wells are measured annually and the remaining 4,000 wells are scheduled to be measured at 5-year intervals, staggered so that some are measured each year. The areas of water-level observation are within seven of the nine major surface-water drainage basins; most are in areas where ground water is used in large quantities for irrigation, municipal, or industrial purposes. Thirty selected wells in various parts of the State are equipped with continuous water-level recording gages.

Ground-water levels reflected the varying climatic conditions during the year. The water-levels throughout the State were below the long-term average for most of the 1981 water year. Greater than average rainfall and streamflow were recorded in a large part of the State during the summer. Water levels were higher than the long-term average for a few months during the irrigation season in the areas with greater than average precipitation, because of reduced ground-water withdrawals.

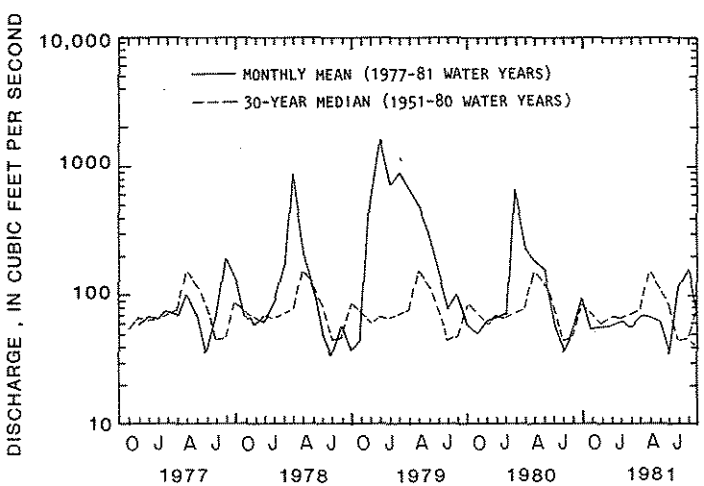
Hydrographs of wells (fig. 2) in the four quadrants of the State illustrate the water-level trends for the last 20 years. The wells in Chaves, Luna, and Union Counties are all in areas of intensive irrigation. The well in Cibola County is in an area where the mining industry has acquired a majority of the water rights. Ground-water withdrawal for agricultural purposes has decreased considerably during the last 10 years, and during the last 4 years, withdrawal for mining operations also has decreased.



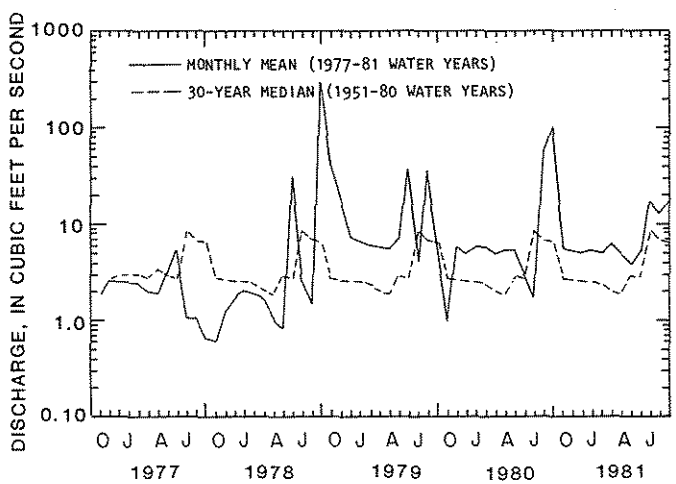
MONTHLY MEAN DISCHARGE AND 30-YEAR MEDIAN DISCHARGE FOR STATION 08276500, RIO GRANDE BELOW TAOS JUNCTION BRIDGE, NEAR TAOS, NEW MEXICO.



MONTHLY MEAN DISCHARGE AND 30-YEAR MEDIAN DISCHARGE FOR STATION 08378500, PECOS RIVER NEAR PECOS, NEW MEXICO.



MONTHLY MEAN DISCHARGE AND 30-YEAR MEDIAN DISCHARGE FOR STATION 09430500, GILA RIVER NEAR GILA, NEW MEXICO.



MONTHLY MEAN DISCHARGE AND 30-YEAR MEDIAN DISCHARGE FOR STATION 08408500, DELAWARE RIVER NEAR RED BLUFF, NEW MEXICO.

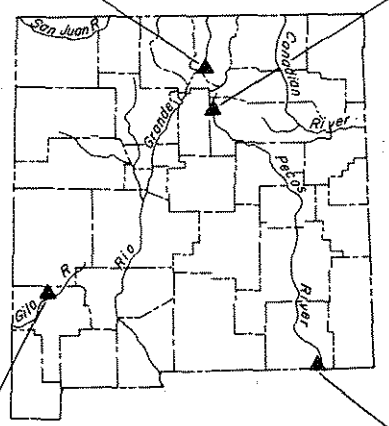


Figure 1.--Comparison of monthly mean discharges (1977-81 water years) to 30-year median (1951-80 water years).

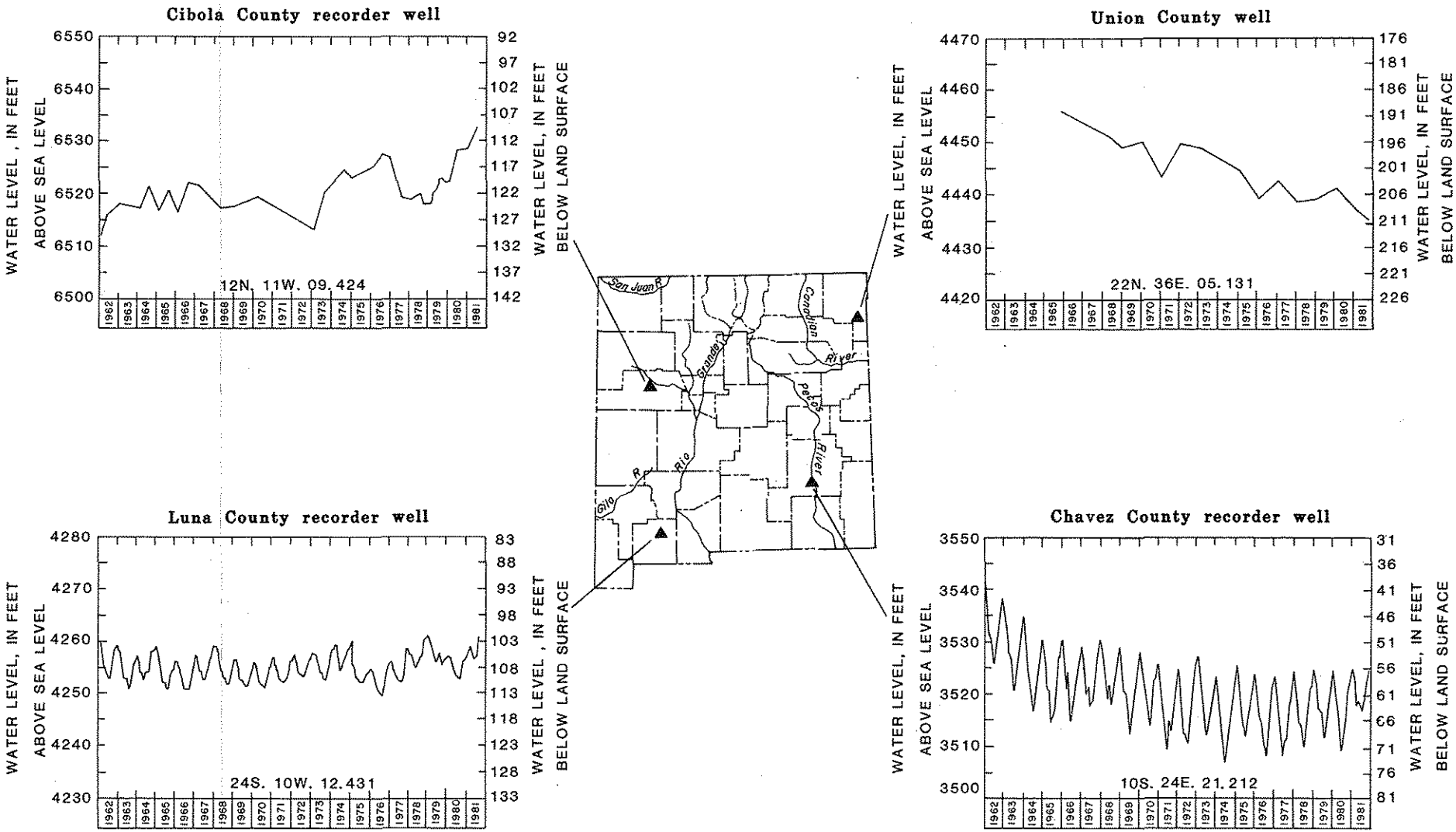


Figure 2.--Ground-water-trends for the last 20 years or period of record.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting English units to International System of units (SI) on the inside of the back cover.

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 325,851 gallons or 1,233.49 cubic meters.

Adenosine triphosphate (ATP) is the primary energy donor in cellular life process. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as the organisms which produce colonies within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as the number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as the number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by the flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.98347 acre feet, 646,317 gallons, or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

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.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (FT^3/S, ft^3/s, cfs) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Discharge weighted average (See weighted average).

Dissolved refers to that material in a representative water sample which passes through a 0.45 m membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$d = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where n_i is the number of individuals per taxon, is the total number of individuals, and is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific 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 river above the specified point. Figures of drainage area given herein include all closed basins, or noncontribution areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

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 hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magenesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram (UG/G, g/g) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Micrograms per liter (UG/L, g/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L, and is based on the mass of sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

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

Particle-size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (Pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology.

The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay.....	0.00024 - 0.004	Sedimentation.
Silt.....	.004 - .062	Sedimentation.
Sand.....	.062 - 2.0	Sedimentation or sieve.
Gravel.....	2.0 - 64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass or volume.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

Pesticides are chemical compounds used to control the growth of undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells/mL of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats of floating "moss" in lakes. Their concentrations are expressed as number of cells/mL of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg $C/(m^2 \cdot time)$ for periphyton and macrophytes and mg $C/(m^3 \cdot time)$] for phytoplankton are the units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg $O_2/(m^2 \cdot time)$ for periphyton and macrophytes and mg $O_2/(m^3 \cdot time)$] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Recoverable from bottom material the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is the quantity of supended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigated farmland.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Solution is the homogeneous mixture of solutes and water. The solutes usually comprise a very small fraction of the total weight of the mixture. For this reason, the terms "solution" and "water" are used interchangeably.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

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

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lived.

Natural substrates refers to any naturally occuring emersed or submersed solid surface, such as a rock or tree, upon which an organism lived.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are batificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 m membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 m membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata* is the following:

Kingdom.....Animal
Phylum.....Arthropoda
Class.....Insecta
Order.....Ephemeroptera
Family.....Ephemeridae
Genus.....*Hexageria*
Species.....*Hexagenia limbata*

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of milligrams per liter by 0.00136.

Tons per day is the quantity of substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

Total in bottom material is the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the consitituent, times the factor 0.0027, times the number of days.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WRD is used as an abbreviation for "Water-Resources Data" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published before 1975.

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

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention on a list of stations in the front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic 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 other 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 series of 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 08313000, which appears just to the left of the station name, includes the 2-digit part number "08" plus the 6-digit downstream order number "313000." In this report, the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are in Part 07 (Lower Mississippi River basin), Part 08 (Western Gulf of Mexico basin), and Part 09 (Colorado River basin).

NUMBERING SYSTEM FOR WELLS, SPRINGS, AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells, springs, and miscellaneous sites where only random water-quality samples are taken.

The well, spring and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well, spring, or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 3 below.

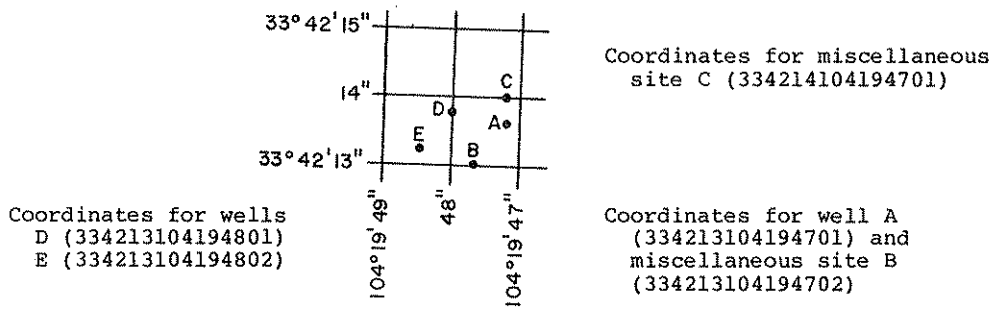


Figure 3.--System for numbering wells, springs, and miscellaneous sites

To provide an additional means of identification and a cross reference to records in older reports, most wells and springs have been assigned a local identifier based on the system of public land surveys. In areas covered by such surveys the local identifier consists of a series of numbers, and letters separated by periods, giving the township, range, section, and tract within a section, in that order. The letters N or S locate the township north or south of the New Mexico base line. The letters E or W locate the range east or west of the New Mexico principal meridian. A zero in a tract number indicates that the well or spring is centrally positioned or has not been located accurately enough to be placed within a tract or quarter section. Three digits in a tract number can locate a well or spring to the nearest 10-acre tract while six digits will locate a site to the nearest 0.16-acre tract. This numbering system is illustrated in WDR NM-75-1 and WSP 1855. In the Navajo Reservation, where public land surveys have not been made, the local identifier is based on a system of letters and numbers. In the example, NR032.0156x0736, the first two letters indicate that the well is in the Navajo Reservation. The three digit number to the left of the decimal indicates one of a series of special quadrangle maps on which the well is located. The two numbers to the right of the decimal separated by the letter x are the coordinates of the well in hundredths of a mile from the northeast corner of the area on the map. The first coordinate indicates the distance west; the second the distance south. The above well is located on map No. 032, 1.56 miles west and 7.36 miles south of the northeast corner.

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. Included in this program are stations 08377900, Rio Mora near Terrero; and 09430600, Mogollon Creek near Cliff.

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality. Included in this network are stations 07227140, Canadian River above New Mexico-Texas State line; 08251500, Rio Grande near Lobatos; 08313000, Rio Grande at Otowi Bridge, near San Ildefonso; 08358300, Rio Grande conveyance channel at San Marcial; 08358400, Rio Grande floodway at San Marcial; 08361000, Rio Grande below Elephant Butte Dam; 08364000 Rio Grande at El Paso, TX; 08370500 Rio Grande below Old Fort Quitman, TX; 08384500, Pecos River below Sumner Dam; 08407500, Pecos River near Red Bluff; 08477110, Mimbres River at Mimbras; 08481500, Rio Tularosa near Bent; 09368000, San Juan River at Shiprock; and 09431500, Gila River near Redrock.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity. Included in this program are the hydrologic bench-mark stations and station 08407500, Pecos River near Red Bluff.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States. Included in this program are stations 08313000, Rio Grande at Otowi Bridge, near San Ildefonso; 08358300, Rio Grande conveyance channel at San Marcial; 08358400, Rio Grande floodway at San Marcial; 09368000, San Juan River at Shiprock; and 09431500, Gila River near Red Rock.

Surveillance network stations are surface-water stations selected for water-quality examinations f water-quality control purposes. These stations are usually located at key regulatory streamflow gaging stations or near the statelines. Data for major inorganic constituents, nutrients, dissolved oxygen, and bacteria are collected at all these stations. Data for trace elements, radiochemicals, and pesticides are collected at some of these stations. Included in this network are stations 07221500, Canadian River near Sanchez; 08276500, Rio Grande below Taos Junction Bridge, near Taos; 08313000, Rio Grande at Otowi Bridge, near San Ildefonso; 08311900, Rio Grande at San Felipe; 08331000, Rio Grande at Isleta; 08354800, Rio Grande conveyance channel at San Acacia; 08354900, Rio Grande floodway at San Acacia; 08358300, Rio Grande conveyance channel at San Marcial; 08358400, Rio Grande floodway at San Marcial; 08363500, Rio Grande at Leasburg Dam, near Las Cruces; 08379500, Pecos River near Anton Chico; 08383500, Pecos River near Puerto de Luna; 08386000, Pecos River near Acme; 08396500, Pecos River near Artesia; and 09368000, San Juan River at Shiprock.

Tritium network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

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 either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard text books, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-operning measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and 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 computed 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 northern 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 gage-height record and occasional winter discharge measurements. Consideration is 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 gives 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 accumulation 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, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise, daily contents may be estimated on the basis of operator's log prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulation of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and 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 mean gage heights or elevations are included for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the current year is shown on the inside of the front cover to facilitate finding the day of the week for any date.

The descriptions of the gaging station gives the location, draingage area, period or record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging stations 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."

Previously published streamflow 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 "REVISED RECORDS" 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, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the 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.

The type of gage currently in use; the datum of the present gage referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS" on page 5.

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging stations 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 given under "REMARKS."

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 records or for stations where changes in water development during the period of record cause the figure to have little significance. Under "EXTREMES" are given, first, the extremes for the period of record; second, information available outside the period of record; and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding 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 on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will 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, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, 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 may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods 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-relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a table showing daily contents or stage. For some reservoirs a monthly summary table of stage and contents is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given, or if daily stage is published.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

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

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

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 three 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.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records and rating tables is on file in the district office. Also most gaging station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Surface-water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives periods of record for the various types of water-quality data (chemical, specific conductance, biological determination, water temperatures, sediment discharge), period of record, extremes of pertinent data, and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling and/or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

Biological data

Generally three types of biological data appear in this report; microbiological data on coliform and streptococci bacteria, phytoplankton data and periphyton data. Methods for the collection and analysis of aquatic biological and aquatic microbiological samples are described by Slack and others (1973). (See reference 5-A4).

Parameter Codes

During 1978, revisions were made in the terminology used to define 143 of the water-quality parameter codes that have been used by the Geological Survey in its publication of water-quality data and in its WATSTORE data system. These revisions were made to achieve consistency in terminology. They do not represent a change in the way the codes have been used in the past or in the association of specific code numbers with identified analytical procedures. A table showing both old and new terminology is printed at the end of the 1978 report.

The five-digit codes shown in parentheses in the column headings of the tables in this report are parameter codes which uniquely identify the data. These are standard codes used to identify the data stored in the files of the National Water Data Storage and Retrieval System which was implemented and is managed by the Water Resources Division (WRD) of the U.S. Geological Survey. These codes are identical to those used by the U.S. Environmental Protection Agency (EPA) in all cases where EPA has assigned a parameter code.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. See figure 3.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to either mean sea level (msl) or land-surface datum (lsd). Mean sea level is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above mean sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office).

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

1-D1. *Water temperature--influential factors, field measurement, and data presentation,* by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents,* by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
2-D1. *Application of surface geophysics to ground-water investigations,* by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
2-E1. *Application of borehole geophysics to water-resources investigations,* by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
3-A1. *General field and office procedures for indirect discharge measurements,* by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
3-A2. *Measurement of peak discharge by the slope-area method,* by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
3-A3. *Measurement of peak discharge at culverts by indirect methods,* by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
3-A4. *Measurement of peak discharge at width contractions by indirect methods,* by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
3-A5. *Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
3-A6. *General procedure for gaging streams,* by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
3-A7. *Stage measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
3-A8. *Discharge measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
3-A11. *Measurement of discharge by moving-boat method,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
3-B1. *Aquifer-test design, observation, and data analysis,* by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction,* by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
3-C1. *Fluvial sediment concepts,* by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
3-C2. *Field methods for measurement of fluvial sediment,* by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
3-C3. *Computation of fluvial-sediment discharge,* by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
4-A1. *Some statistical tools in hydrology,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
4-A2. *Frequency curves,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
4-B1. *Low-flow investigations,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
4-B2. *Storage analyses for water supply,* by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
4-B3. *Regional analyses of streamflow characteristics,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
4-D1. *Computation of rate and volume of stream depletion by wells,* by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
5-A1. *Methods for determination of inorganic substances in water and fluvial sediments,* by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.
5-A2. *Determination of minor elements in water by emission spectroscopy,* by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
5-A3. *Methods for analysis of organic substances in water,* by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.
5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples,* edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.
5-A5. *Methods for determination of radioactive substances in water and fluvial sediments,* by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
5-C1. *Laboratory theory and methods for sediment analysis,* by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments,* by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water,* by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
8-A1. *Methods of measuring water levels in deep wells,* by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
8-B2. *Calibration and maintenance of vertical-axis type current meters,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

Figure 4.-- Map of New Mexico showing location of hydrologic units.

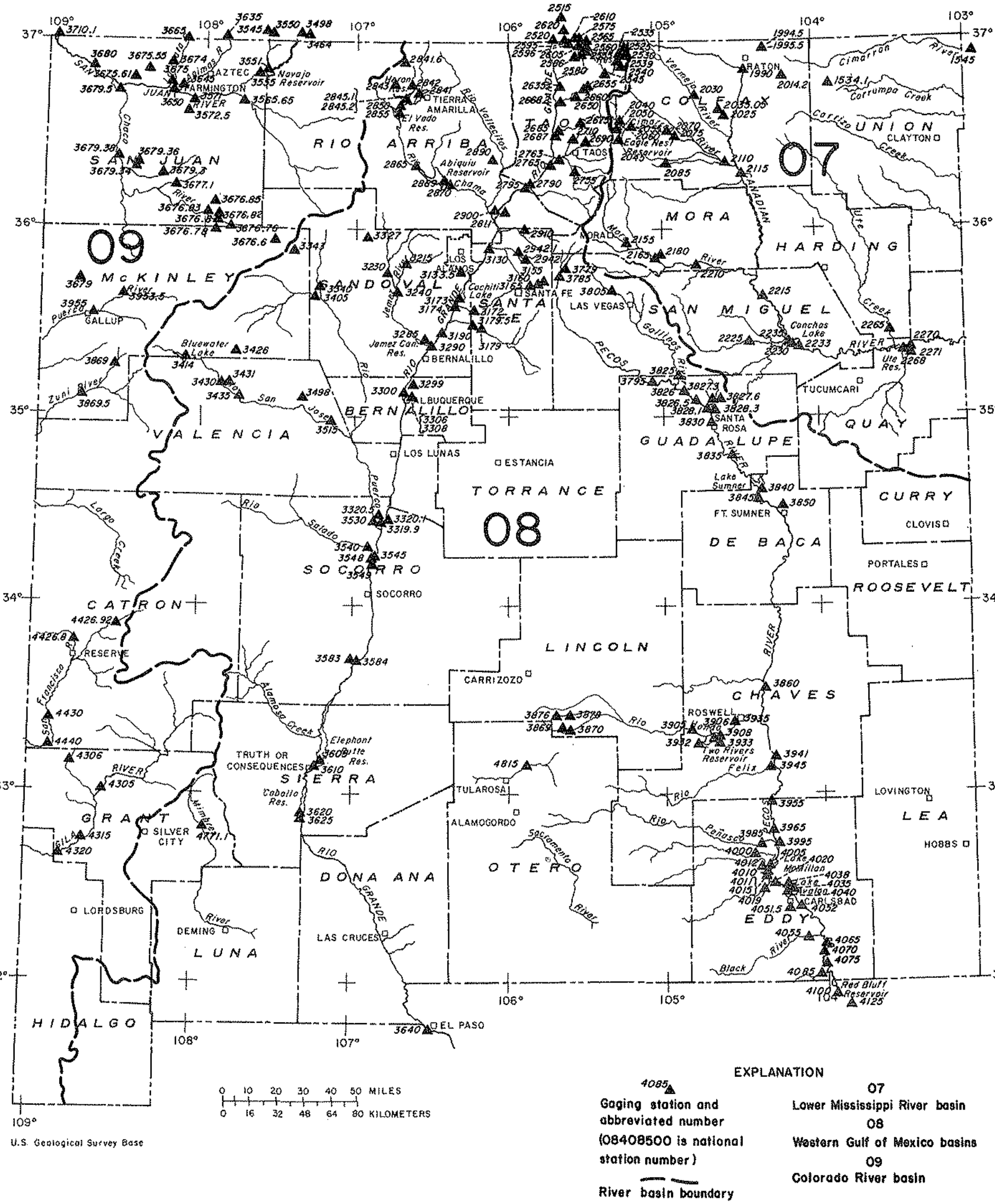
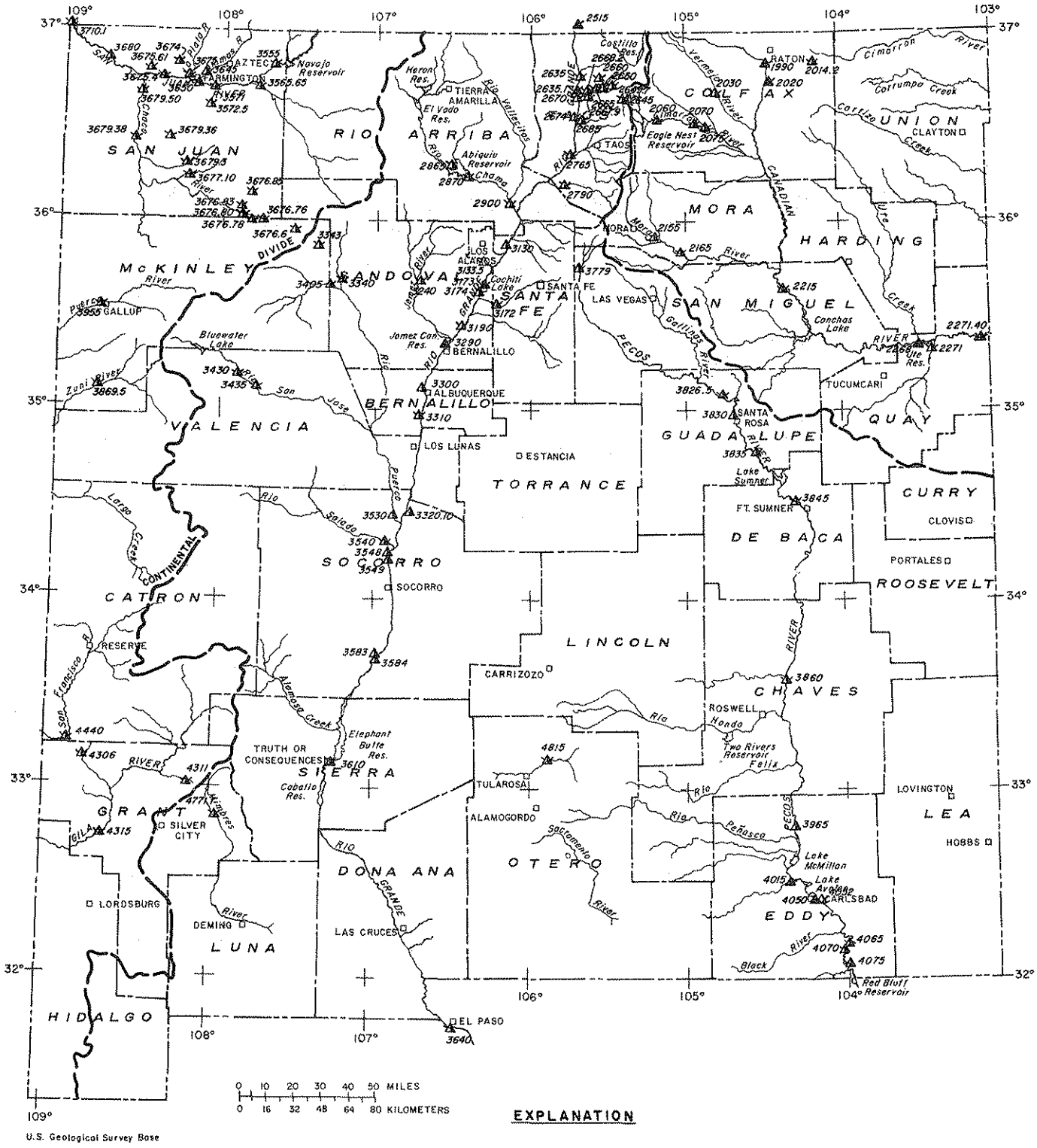


Figure 5.-- Map of New Mexico showing location of surface-water gaging stations.



EXPLANATION

STATION AND SAMPLING FREQUENCY

Chemical quality: ▲ daily ▲ other than daily

Suspended sediment: △ daily △ other than daily

Chemical quality and Suspended sediment: ▲ both daily ▲ both other than daily

▲ daily chemical quality and other than daily suspended sediment

▲ daily suspended sediment and other than daily chemical quality

BASIN AND STATION NUMBER

River basin boundary:

Lower Mississippi River basin number: 07

Western Gulf of Mexico basin number: 08

Colorado River basin number: 09

2271.40

Number by symbol is abbreviated station number. Complete station number of example is:

07 227140

Basin no. Station no.

Figure 6.--Map of New Mexico showing location of water-quality gaging stations.

LOWER MISSISSIPPI RIVER BASIN

ARKANSAS RIVER BASIN

07153410 BENNETT SPRING NEAR CAPULIN, NM

LOCATION.--Lat 36°46'04", long 103°55'01", in NW¼NW¼ sec. 12, T.29 N., R.28 E., Union County, Hydrologic Unit 11040001, on right bank about 100 ft (30 m) below the source and 4.7 mi (7.6 km) northeast of Capulin.
PERIOD OF RECORD.--July 1977 to September 1981 (discontinued).
GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 6,638 ft (2,023 m), from topographic map.
REMARKS.--Records fair. No diversion above station.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3.2 ft^3/s (0.091 m^3/s) Sept. 3, 1977, gage height, 1.36 ft (0.415 m), includes storm runoff between source and gage; minimum, 0.09 ft^3/s (0.003 m^3/s) Nov. 1, 1979, result of regulation.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3.0 ft^3/s (0.085 m^3/s) Aug. 15, gage height, 1.32 ft (0.402 m), includes storm runoff between source and gage; minimum daily, 0.14 ft^3/s (0.004 m^3/s) June 21, 24, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.23	.26	.19	.23	.21	.25	.25	.19	.31	.22	.24	.21
2	.26	.26	.19	.23	.21	.25	.26	.19	.31	.21	.25	.22
3	.26	.25	.20	.25	.22	.26	.26	.19	.29	.20	.28	.22
4	.26	.24	.19	.24	.22	.26	.25	.19	.29	.20	.35	.21
5	.25	.25	.19	.25	.22	.25	.23	.20	.28	.19	.34	.21
6	.25	.24	.19	.25	.21	.25	.22	.22	.26	.20	.36	.21
7	.25	.21	.19	.25	.22	.25	.21	.22	.25	.21	.37	.22
8	.26	.23	.19	.25	.22	.25	.22	.22	.23	.20	.35	.21
9	.25	.24	.18	.25	.22	.25	.22	.23	.23	.19	.32	.21
10	.26	.24	.18	.25	.22	.24	.20	.23	.22	.20	.33	.22
11	.28	.23	.18	.24	.22	.25	.20	.23	.21	.21	.34	.23
12	.28	.24	.18	.24	.22	.25	.20	.24	.21	.22	.35	.23
13	.28	.23	.19	.25	.22	.25	.20	.27	.20	.20	.36	.23
14	.28	.24	.20	.23	.22	.25	.19	.28	.19	.19	.36	.23
15	.28	.23	.20	.23	.22	.25	.18	.28	.18	.19	.71	.23
16	.28	.24	.20	.22	.22	.25	.18	.29	.17	.21	.22	.23
17	.27	.22	.20	.22	.21	.25	.18	.31	.16	.21	.23	.23
18	.27	.22	.20	.23	.22	.24	.18	.31	.16	.23	.25	.22
19	.25	.21	.19	.23	.22	.23	.18	.31	.15	.25	.26	.19
20	.25	.20	.20	.23	.22	.24	.17	.34	.15	.25	.25	.18
21	.26	.22	.19	.23	.22	.25	.17	.36	.14	.24	.25	.18
22	.23	.21	.20	.22	.22	.23	.16	.36	.15	.24	.25	.17
23	.25	.19	.20	.23	.22	.23	.16	.37	.15	.23	.24	.20
24	.24	.21	.22	.23	.22	.24	.16	.37	.14	.23	.23	.21
25	.24	.20	.22	.23	.22	.25	.17	.38	.14	.23	.23	.21
26	.26	.19	.22	.23	.23	.24	.16	.38	.15	.23	.23	.21
27	.26	.20	.23	.23	.23	.25	.16	.39	.16	.23	.23	.21
28	.29	.20	.22	.22	.24	.25	.16	.37	.18	.24	.22	.21
29	.26	.21	.22	.22	---	.25	.16	.34	.19	.23	.22	.22
30	.26	.20	.22	.22	---	.24	.17	.34	.21	.24	.22	.22
31	.24	---	.22	.22	---	.25	---	.32	---	.23	.22	---
TOTAL	8.04	6.71	6.19	7.25	6.16	7.65	5.81	8.92	6.06	6.75	9.06	6.38
MEAN	.26	.22	.20	.23	.22	.25	.19	.29	.20	.22	.29	.21
MAX	.29	.26	.23	.25	.24	.26	.26	.39	.31	.25	.71	.23
MIN	.23	.19	.18	.22	.21	.23	.16	.19	.14	.19	.22	.17
AC-FT	16	13	12	14	12	15	12	18	12	13	18	13

CAL YR 1980 TOTAL 79.45 MEAN .22 MAX .29 MIN .15 AC-FT 158
WTR YR 1981 TOTAL 84.98 MEAN .23 MAX .71 MIN .14 AC-FT 169

07154500 CIMARRON RIVER NEAR KENTON, OK

LOCATION.--Lat 36°55'36", long 102°57'31", in SE¼ sec.4, T.5 N., R.1 E., Cimarron County, Hydrologic Unit 11040001, 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 mi^2 (2,865 km^2), of which 68 mi^2 (176 km^2) is probably noncontributing.
PERIOD OF RECORD.--April 1904 to July 1905 (gage heights only), October 1950 to current year.
REVISED RECORDS.--WSP 1711: 1956(M).
GAGE.--Water-stage recorder. Datum of gage is 4,262.08 ft (1,299.082 m) National Geodetic Vertical Datum of 1929 (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.
REMARKS.--Records poor. Extensive diversions for irrigation above station.
AVERAGE DISCHARGE.--31 years (water years 1951-81), 22.2 ft^3/s (0.629 m^3/s), 16,080 acre-ft/yr (19.8 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,400 ft^3/s (1,230 m^3/s) Oct. 17, 1965, gage height, 22.32 ft (6.803 m), present datum, from rating curve extended above 7,000 ft^3/s (198 m^3/s) on basis of contracted-opening measurement of peak flow; no flow at times most years.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,940 ft^3/s (168 m^3/s) at 1445 hours Aug. 11, gage height, 14.74 ft (4.493 m), no other peak above base of 2,000 ft^3/s (57 m^3/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.05	.07	.08	.08	25	.00	.00	.00	18
2	.00	.00	.00	.04	.07	.09	.07	.20	.00	.00	.00	17
3	.00	.00	.00	.04	.08	.25	.07	.00	25	.00	.00	14
4	.00	.00	.00	.05	.08	2.2	.07	.00	100	40	.00	12
5	.00	.00	.00	.05	.07	1.5	.07	.00	.30	8.2	.00	12
6	.00	.00	.00	.05	.06	.20	.07	.00	.00	.00	.00	13
7	.00	.00	.00	.05	.06	.18	.07	.00	.00	.00	.00	22
8	.00	.00	.00	.06	.07	.17	.06	.00	.00	.00	11	58
9	.00	.00	.00	.06	.07	.17	.06	.00	.00	.00	.00	38
10	.00	.00	.00	.05	.07	.16	.06	.00	.00	.00	.00	24
11	.00	.00	.00	.06	.07	.16	.06	.00	.00	.00	2160	17
12	.00	.00	.00	.06	.07	.16	.06	.00	.00	.00	524	13
13	.00	.00	.00	.05	.07	.15	.06	.00	.00	.00	579	12
14	.00	.00	.00	.05	.08	.15	.06	.00	.00	.00	150	83
15	.00	.00	.00	.06	.08	.15	.06	.00	.00	.00	101	53
16	.00	.00	.00	.05	.09	.14	.06	.00	.00	.00	434	36
17	.00	.00	.00	.05	.10	.15	.06	.00	.00	.00	613	24
18	.00	.00	.00	.06	.10	.16	.06	.00	.00	6.7	346	19
19	.00	.00	.00	.07	.12	.15	.05	.00	.00	13	105	15
20	.00	.00	.00	.07	.13	.14	.05	.00	.00	.00	11	12
21	.00	.00	.00	.07	.14	.13	.05	.00	.00	.00	1.0	9.2
22	.00	.00	.00	.06	.13	.12	.05	.00	.00	.00	.14	7.7
23	.00	.00	.15	.06	.12	.11	.05	.00	.00	.00	50	7.2
24	.00	.00	.29	.06	.11	.10	.05	.00	.00	.00	39	6.8
25	.00	.00	.17	.06	.10	.10	.04	.00	.00	.00	24	6.4
26	.00	.00	.42	.07	.10	.09	.04	.00	.00	.00	19	5.8
27	.00	.00	.39	.06	.10	.09	.04	.00	.00	68	148	5.0
28	.00	.00	.77	.06	.09	.09	.04	.00	.00	98	70	4.6
29	.00	.00	.50	.07	---	.09	.03	.00	.00	.13	36	4.2
30	.00	.00	.30	.07	---	.08	.03	374	.00	.00	20	3.4
31	.00	---	.10	.07	---	.08	---	5.2	---	.00	18	---
TOTAL	.00	.00	3.09	1.79	2.50	7.59	1.68	404.40	125.30	234.03	5459.14	572.3
MEAN	.000	.000	.10	.058	.089	.24	.056	13.0	4.18	7.55	176	19.1
MAX	.00	.00	.77	.07	.14	2.2	.08	374	100	98	2160	83
MIN	.00	.00	.00	.04	.06	.08	.03	.00	.00	.00	.00	3.4
AC-FT	.00	.00	6.1	3.6	5.0	15	3.3	802	249	464	10830	1140

CAL YR 1980	TOTAL	474.86	MEAN	1.30	MAX	40	MIN	.00	AC-FT	942
WTR YR 1981	TOTAL	6811.82	MEAN	18.7	MAX	2160	MIN	.00	AC-FT	13510

07199000 CANADIAN RIVER NEAR HEBRON, NM

LOCATION.--Lat 36°47'14", long 104°27'42", Colfax County, Hydrologic Unit 11080001, 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.
REVISED RECORDS.--WSP 1281: 1946, 1947-48(P), 1949. WSP 1921: 1960(M).
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.
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.
AVERAGE DISCHARGE.--35 years, 7.72 ft^3/s (0.219 m^3/s), 5,590 acre-ft/yr (6.89 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62,400 ft^3/s (1,770 m^3/s) June 17, 1965, gage height, 28.2 ft (8.60 m), from floodmarks, present datum, from rating curve extended above 1,300 ft^3/s (37 m^3/s) on basis of slope-area measurement of peak flow; no flow for many days most years.
EXTREMES OUTSIDE PERIOD OF RECORD.--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.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28 m^3/s) and maximum (*), from rating curve extended above 56 ft^3/s (1.6 m^3/s) as explained above:

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 30	2100	1930	54.7	5.32	1.622	Aug. 13	0130	2180	61.7	5.45	1.661
May 5	1900	1200	34.0	4.92	1.500	Aug. 15	1830	2680	75.9	5.70	1.737
July 3	1630	2200	62.3	5.46	1.664	Aug. 16	1430	3480	98.6	6.08	1.853
July 18	1600	1810	51.3	5.26	1.603	Aug. 17	2100	1340	37.9	5.00	1.524
Aug. 7	0530	1970	55.8	5.34	1.628	Aug. 28	1800	1240	35.1	4.94	1.506
Aug. 11	0100	4070	115	6.35	1.935	Sept. 7	1100	3100	87.8	5.90	1.798
Aug. 12	0130	*11500	326	9.70	2.957	Sept. 12	1800	3870	110	6.26	1.908

No flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.04	.08	.14	.06	.06	.03	.79	.27	.01	3.9	10
2	.00	.04	.07	.14	.06	.08	.04	.09	3.9	.00	2.0	6.2
3	.00	.04	.08	.14	.06	.08	.04	12	8.6	133	86	63
4	.00	.04	.08	.14	.06	.06	.06	.07	.22	23	2.5	98
5	.00	.04	.08	.14	.06	.06	.06	46	.18	2.0	1.5	169
6	.01	.04	.08	.14	.06	.04	.04	21	.15	.50	28	61
7	.01	.04	.08	.14	.06	.04	.04	1.0	.12	.20	227	704
8	.01	.06	.07	.14	.06	.05	.04	.50	.12	.15	51	217
9	.01	.06	.06	.14	.06	.06	.04	.25	.09	.12	24	125
10	.01	.06	.08	.12	.04	.06	.04	.20	.07	.10	246	125
11	.02	.06	.11	.10	.02	.08	.04	.18	.09	1.0	908	73
12	.02	.06	.08	.10	.03	.08	.06	.16	.07	67	2780	415
13	.02	.06	.06	.12	.03	.06	.06	.15	.04	20	562	75
14	.02	.04	.08	.10	.04	.14	.08	.15	.01	3.0	57	56
15	.02	.04	.08	.08	.04	.06	.08	.15	.01	.20	469	38
16	.02	.03	.08	.06	.04	.06	.06	.15	.02	.18	363	49
17	.01	.02	.08	.06	.04	.04	.06	.15	.02	.15	180	38
18	.01	.02	.08	.04	.04	.06	.08	.15	.01	131	66	29
19	.01	.03	.07	.06	.04	.06	.08	.15	.02	151	68	25
20	.01	.04	.05	.06	.04	.06	.08	.15	.00	2.0	41	20
21	.02	.05	.05	.06	.04	.06	.08	.15	.00	.25	32	18
22	.02	.06	.06	.06	.06	.08	.08	.15	.00	.07	25	14
23	.02	.06	.08	.06	.06	.08	.11	.15	.02	.07	21	13
24	.02	.04	.10	.07	.06	.08	.06	.15	.04	.05	12	12
25	.03	.03	.12	.08	.06	.08	.06	.15	.05	.04	12	11
26	.03	.03	.13	.06	.06	.06	.06	.15	.03	108	7.6	9.4
27	.02	.04	.14	.08	.04	.06	.06	.15	.00	15	42	7.8
28	.04	.06	.11	.08	.04	.08	.06	.15	.01	3.5	29	6.2
29	.04	.07	.11	.08	---	.06	.06	76	.00	25	57	4.6
30	.04	.08	.14	.06	---	.06	80	6.6	.00	3.8	55	5.6
31	.04	---	.14	.08	---	.04	---	.33	---	1.2	18	---
TOTAL	.53	1.38	2.71	2.93	1.36	2.03	81.74	167.57	14.16	691.59	6476.5	2497.8
MEAN	.017	.046	.087	.095	.049	.065	2.72	5.41	.47	22.3	209	83.3
MAX	.04	.08	.14	.14	.06	.14	80	76	8.6	151	2780	704
MIN	.00	.02	.05	.04	.02	.04	.03	.07	.00	.00	1.5	4.6
AC-FT	1.1	2.7	5.4	5.8	2.7	4.0	162	332	28	1370	12850	4950

CAL YR 1980 TOTAL 3658.06 MEAN 9.99 MAX 1310 MIN .00 AC-FT 7260
WTR YR 1981 TOTAL 9940.30 MEAN 27.2 MAX 2780 MIN .00 AC-FT 19720

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)
OCT 15	1215	E.02	5100	8.1	14.0

07199450 LAKE MALOYA NEAR RATON, NM

LOCATION.--Lat 36°59'02", long 104°22'24", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, near spillway of dam on Chicorica Creek, 6.5 mi (10.5 km) northeast of Raton, and at mile 21.5 (34.6 km).
DRAINAGE AREA.--20.8 mi^2 (53.9 km^2).
PERIOD OF RECORD.--May 1975 to current year.
GAGE.--Nonrecording gage. Altitude of gage is National Geodetic Vertical Datum of 1929, from topographic map.
REMARKS.--Reservoir is formed by an earthfill dam, completed in 1907; capacity, 59 acre-ft (72,700 m^3). Reservoir enlarged in 1916; capacity, 1,130 acre-ft (1.39 hm^3), spillway elevation, 7,479.0 ft (2,279.60 m). Reservoir enlarged again in 1948; capacity, 3,690 acre-ft (4.55 hm^3), spillway elevation, 7,511.0 ft (2,289.35 m). Elevation of lowest outlet, 7,439.0 ft (2,267.41 m). No dead storage. Water is for municipal use of city of Raton. See table below for total monthly diversion, in acre-feet, from Lake Maloya and Lake Alice for municipal supply for city of Raton.
COOPERATION.--Elevations furnished by city of Raton. Capacity table furnished by New Mexico Interstate Stream Commission.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 3,970 acre-ft (4.90 hm^3) May 31, 1975, elevation, 7,510.79 ft (2,289.289 m); maximum elevation observed, 7,511.00 ft (2,289.353 m) May 31, 1980; minimum observed, 911 acre-ft (1.12 hm^3) Feb. 28, 1979, elevation, 7,479.85 ft (2,279.858 m).
EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 3,660 acre-ft (4.51 hm^3) Sept. 30, elevation, 7,510.75 ft (2,289.277 m); minimum observed, 2,590 acre-ft (3.19 hm^3) Jan. 31, elevation, 7,501.23 ft (2,286.375 m).

07199550 LAKE ALICE NEAR RATON, NM

LOCATION.--Lat 36°57'15", long 104°23'06", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, near spillway of dam on Chicorica Creek, 4.4 mi (7.1 km) northeast of Raton, and at mile 19.2 (30.9 km).
DRAINAGE AREA.--29.4 mi^2 (76.1 km^2).
PERIOD OF RECORD.--May 1975 to current year.
GAGE.--Nonrecording gage. Altitude of gage is National Geodetic Vertical Datum of 1929, from topographic map.
REMARKS.--Reservoir is formed by an earthfill dam, completed in 1892; capacity 100 acre-ft (123,000 m^3), spillway elevation, 7,078.0 ft (2,157.37 m). Reservoir rehabilitated in 1941; capacity, 71 acre-ft (87,500 m^3), spillway elevation, 7,089.6 ft (2,160.91 m). Elevation of lowest outlet, 7,064.1 ft (2,153.14 m). No dead storage. Water is for municipal use of city of Raton. See table below for total monthly diversion, in acre-feet, from Lake Maloya and Lake Alice for municipal supply for city of Raton.
COOPERATION.--Elevations furnished by city of Raton.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 71 acre-ft (87,500 m^3) Apr. 30, May 31, 1980, June 30, July 31, Aug. 31, Sept. 30, 1981, elevation, 7,089.60 ft (2,160.910 m); minimum observed, 40 acre-ft (49,300 m^3) May 31, 1978, elevation, 7,083.27 ft (2,158.981 m).
EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 71 acre-ft (87,500 m^3) June 30, July 31, Aug. 31, Sept. 30, elevation, 7,089.60 ft (2,160.910 m); minimum observed, 54 acre-ft (66,600 m^3) Mar. 31, elevation, 7,086.43 ft (2,159.944 m).

MONTHEND ELEVATION AND CONTENTS AND MONTHLY DIVERSIONS, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Monthly diversions from Lake Maloya and Lake Alice (acre-feet)
	07199450 LAKE MALOYA			07199550 LAKE ALICE			
Sept. 30, 1980....	7,505.36	3,040	-	7,087.40	59	-	-
Oct. 31.....	7,504.20	2,910	-130	7,087.50	60	+1	100
Nov. 30.....	7,504.20	2,910	0	7,087.80	61	+1	81
Dec. 31.....	7,503.05	2,790	-120	7,088.20	63	+2	80
CAL YR 1980	-	-	+880	-	-	+3	1,440
Jan. 31, 1981.....	7,501.23	2,590	-200	7,088.42	64	+1	81
Feb. 28.....	7,501.98	2,670	+80	7,088.90	66	+2	79
Mar. 31.....	7,503.74	2,860	+190	7,086.43	54	-12	77
Apr. 30.....	7,504.20	2,910	+50	7,089.00	67	+13	115
May 31.....	7,504.98	3,000	+90	7,088.80	66	-1	119
June 30.....	7,503.40	2,820	-180	7,089.60	71	+5	168
July 31.....	7,503.55	2,840	+20	7,089.60	71	0	143
Aug. 31.....	7,507.38	3,260	+420	7,089.60	71	0	108
Sept.30.....	7,510.75	3,660	+400	7,089.60	71	0	106
WTR YR 1981	-	-	+620	-	-	-	1,260

07201420 UNA DE GATO CREEK BELOW THROTTLE DAM NEAR RATON, NM

LOCATION.--Lat 36°48'52", long 104°13'57", in SE¼SW¼ sec.24, T.30 N., R.25 E., Colfax County, Hydrologic Unit 11080001, on right bank 1.0 mi (1.6 km) downstream from Throttle Dam and 13 mi (21 km) southeast of Raton.
DRAINAGE AREA.--49.5 mi^2 (128.2 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1975 to current year.
REVISED RECORDS.--WRD NM-77-1: 1975 (M), 1976 (M).
GAGE.--Water-stage recorder. Altitude of gage is 6,635 ft (2,020 m), from topographic map.
REMARKS.--Water-discharge records fair except those for winter period and those above 10 ft^3/s (0.28 m^3/s), which are poor. Flow regulated by Throttle Reservoir, capacity 3,300 acre-ft (4.07 hm^3) 1 mi (1.6 km) upstream.
AVERAGE DISCHARGE.--6 years, 1.63 ft^3/s (0.046 m^3/s), 1,180 acre-ft/yr (1.45 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 526 ft^3/s (14.9 m^3/s) Sept. 4, 1977, gage height, 4.24 ft (1.292 m), from rating curve extended above 5.9 ft^3/s (0.17 m^3/s) on basis of slope-area measurement of peak flow; no flow at times.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 345 ft^3/s (9.77 m^3/s) Aug. 7, gage height, 3.72 ft (1.134 m), from rating curve extended above 11 ft^3/s (0.31 m^3/s) as explained above; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.04	.04	.11	5.0	.07	2.9	7.8
2	.00	.00	.00	.00	.00	.04	.05	.13	6.9	.07	2.9	4.7
3	.00	.00	.00	.00	.00	.04	.06	.15	12	.16	2.9	2.4
4	.00	.00	.00	.00	.00	.01	.05	.16	10	.48	2.6	2.2
5	.00	.00	.00	.00	.00	.07	.06	.15	9.5	.07	2.5	2.3
6	.00	.00	.00	.00	.00	.04	.05	.17	8.9	.06	3.4	2.5
7	.00	.00	.00	.00	.00	.03	.06	.11	9.0	.06	8.4	2.4
8	.00	.00	.00	.00	.00	.02	.07	.09	11	.16	1.9	2.3
9	.00	.00	.00	.00	.00	.01	.06	.12	14	1.3	1.7	2.1
10	.00	.00	.00	.00	.00	.00	.07	.09	13	1.4	4.7	2.0
11	.00	.00	.00	.00	.00	.00	.08	.09	11	1.9	2.0	2.0
12	.00	.00	.00	.00	.01	.00	.09	.07	7.7	1.8	2.9	2.4
13	.00	.00	.00	.00	.02	.02	.10	.06	5.6	1.2	2.0	2.0
14	.00	.00	.00	.00	.03	.05	.10	.07	4.7	.76	1.5	2.6
15	.00	.00	.00	.00	.04	.69	.10	.12	2.7	.41	1.0	3.2
16	.00	.00	.00	.00	.05	.11	.10	.11	.07	.44	.70	2.3
17	.00	.00	.00	.00	.05	.05	.10	.11	.07	.43	.50	1.6
18	.00	.00	.00	.00	.05	.04	.10	.12	.06	.74	.40	1.5
19	.00	.00	.00	.00	.05	.03	.11	.13	.06	.45	.34	5.4
20	.00	.00	.00	.00	.05	.03	.11	.18	.05	.91	.42	7.8
21	.00	.00	.00	.00	.04	.05	.11	.15	.05	2.3	.40	7.9
22	.00	.00	.00	.00	.04	.05	.12	.13	.05	2.4	.94	7.8
23	.00	.00	.00	.00	.03	.05	.13	1.4	.05	2.3	.43	7.7
24	.00	.00	.00	.00	.03	.06	.14	1.7	.05	2.3	.44	7.5
25	.00	.00	.00	.00	.04	.05	.14	4.2	.10	2.1	.44	8.1
26	.00	.00	.00	.00	.04	.05	.14	4.8	.12	2.4	.55	8.3
27	.00	.00	.00	.00	.04	.05	.14	6.3	.26	2.2	2.8	8.3
28	.00	.00	.00	.00	.04	.03	.14	7.8	.65	3.6	.38	8.3
29	.00	.00	.00	.00	---	.03	.14	8.1	.07	2.9	.36	8.3
30	.00	.00	.00	.00	---	.02	.13	2.8	.07	3.2	.52	8.4
31	.00	---	.00	.00	---	.02	---	5.8	---	3.4	4.8	---
TOTAL	.00	.00	.00	.00	.65	1.78	2.89	45.52	132.78	41.97	57.72	142.1
MEAN	.000	.000	.000	.000	.023	.057	.096	1.47	4.43	1.35	1.86	4.74
MAX	.00	.00	.00	.00	.05	.69	.14	8.1	14	3.6	8.4	8.4
MIN	.00	.00	.00	.00	.00	.00	.04	.06	.05	.06	.34	1.5
AC-FT	.00	.00	.00	.00	1.3	3.5	5.7	90	263	83	114	282

CAL YR 1980 TOTAL 1063.09 MEAN 2.90 MAX 86 MIN .00 AC-FT 2110
WTR YR 1981 TOTAL 425.41 MEAN 1.17 MAX 14 MIN .00 AC-FT 844

PERIOD OF RECORD.--Water year 1975 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
MAR											
03...	1100	.04	1560	7.8	--	3.5	720	--	170	72	97
APR											
01...	1030	E.04	1320	8.0	--	7.0	--	--	--	--	--
28...	1130	.14	987	8.2	--	9.0	440	260	98	47	46
MAY											
27...	1140	11	905	8.2	26.5	19.5	410	260	88	46	37
JUN											
25...	1635	.40	1220	8.4	16.0	17.5	--	--	--	--	--
JUL											
22...	1130	2.3	380	8.4	32.5	25.0	--	--	--	--	--
AUG											
18...	1030	.41	450	8.6	15.5	17.5	220	87	54	20	22
SEP											
15...	1115	3.0	370	8.5	15.0	19.0	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
MAR										
03...	1.6	3.7	240	650	13	.3	14	1160	80	10
APR										
01...	--	--	--	--	--	--	--	--	--	--
28...	1.0	3.9	180	360	6.1	.3	6.9	677	50	10
MAY										
27...	.8	6.0	150	320	5.9	.2	3.4	597	40	20
JUN										
25...	--	--	--	--	--	--	--	--	--	--
JUL										
22...	--	--	--	--	--	--	--	--	--	--
AUG										
18...	.7	4.2	130	120	2.9	.2	10	312	30	38
SEP										
15...	--	--	--	--	--	--	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
APR										
28...	1130	2	1	50	1	<1	10	10	5	2
MAY										
27...	1140	10	2	40	0	<1	20	10	12	2

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
APR									
28...	10	5	0	.1	.0	3	2	10	10
MAY									
27...	20	3	2	.1	.0	2	0	40	8

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAY						
27...	1230	11	19.5	672	20	97

07202000 CHICORICA CREEK NEAR HEBRON, NM

LOCATION.--Lat 36°46'13", long 104°23'45", in SW¼SE¼SW¼ sec.4, T.29 N., R.24 E., Colfax County, Hydrologic Unit 11080001, at highway bridge near east boundary of Maxwell Grant, 300 ft (91 m) downstream from Una de Gato Creek, 4.4 mi (7.1 km) northeast of Hebron, and 9 mi (14.5 km) south of Raton.

DRAINAGE AREA.--381 mi^2 (987 km^2).

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

REMARKS.--Water discharge measurements were made at the time water-quality samples were collected.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)
OCT					
15...	1130	.11	2070	8.0	11.0
NOV					
13...	1150	.47	3280	8.0	8.0

07202500 EAGLE TAIL DITCH NEAR MAXWELL, NM

LOCATION.--Lat 36°38'55", long 104°33'31", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, on left bank 25 ft (8 m) upstream from concrete drop structure, 300 ft (91 m) upstream from Crow Creek, and 7.5 mi (12.1 km) north of Maxwell.

PERIOD OF RECORD.--December 1944 to July 1950 (monthly discharge only October 1945 to July 1950), May 1975 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,110 ft (1,860 m), from topographic map. Prior to May 1975, at site about 200 ft upstream at different datum.

REMARKS.--Records fair. Eagle Tail ditch diverts water from Chicorica Creek for use near Maxwell. No diversions above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years (water years 1946-49, 1976-81), 4.84 ft^3/s (0.137 m^3/s), 3,510 acre-ft/yr (4.33 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 217 ft^3/s (6.15 m^3/s) Aug. 27, 1946, from rating curve extended above 85 ft^3/s (2.4 m^3/s); no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 161 ft^3/s (4.56 m^3/s) Aug. 17, from rating curve extended above 55 ft^3/s (1.6 m^3/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	3.1	.06	1.3	2.7
2	.00	.00	.00	.00	.00	.00	.00	.00	1.4	.00	1.1	2.1
3	.00	.00	.00	.00	.00	.00	.00	.00	4.6	.00	51	17
4	.00	.00	.00	.00	.00	.00	.00	.00	4.1	47	31	22
5	.00	.00	.00	.00	.00	.00	.00	.00	1.1	6.9	4.5	16
6	.00	.00	.00	.00	.00	.06	.00	.00	.30	1.5	2.9	130
7	.00	.00	.00	.00	.00	.10	.00	17	.15	.28	20	45
8	.00	.00	.00	.00	.00	.00	.00	1.5	.02	.00	55	11
9	.00	.00	.00	.00	.00	.00	.00	.17	.00	.00	22	4.7
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.3	17
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	75	29
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	134	17
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	130	6.9
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	100	3.6
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	19	3.4
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	64	3.2
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	161	2.9
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	92	2.6
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	49	70	2.2
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.5	62	1.7
21	.00	.00	.00	.00	.00	.00	.00	.68	.00	3.2	7.6	1.5
22	.00	.00	.00	.00	.00	.00	.00	2.6	.00	1.2	4.0	1.3
23	.00	.00	.00	.00	.00	.00	.00	.41	.00	.36	5.7	1.2
24	.00	.00	.00	.00	.00	.00	.00	.03	.78	.15	6.5	1.1
25	.00	.00	.00	.00	.00	.00	.00	.00	.28	.08	2.7	1.4
26	.00	.00	.00	.00	.00	.00	.00	.00	12	.06	2.1	2.1
27	.00	.00	.00	.00	.00	.00	.00	.00	1.6	31	55	1.1
28	.00	.00	.00	.00	.00	.00	.00	.00	.30	11	72	.98
29	.00	.00	.00	.00	---	.00	.00	.00	.00	2.4	88	.96
30	.00	.00	.00	.00	---	.00	.00	13	.00	6.1	12	.89
31	.00	---	.00	.00	---	.00	---	14	---	2.7	5.1	---
TOTAL	.00	.00	.00	.00	.00	.16	.00	49.39	29.73	170.49	1361.8	352.53
MEAN	.000	.000	.000	.000	.000	.005	.000	1.59	.99	5.50	43.9	11.8
MAX	.00	.00	.00	.00	.00	.10	.00	17	12	49	161	130
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.1	.89
AC-FT	.00	.00	.00	.00	.00	.3	.00	98	59	338	2700	699

CAL YR 1980 TOTAL 2078.43 MEAN 5.68 MAX 214 MIN .00 AC-FT 4120
WTR YR 1981 TOTAL 1964.10 MEAN 5.38 MAX 161 MIN .00 AC-FT 3900

07203000 VERMEJO RIVER NEAR DAWSON, NM

LOCATION.--Lat 36°40'50", long 104°47'08", Colfax County, Hydrologic Unit 11080001, 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 28.2 (45.4 km).
DRAINAGE AREA.--301 mi^2 (780 km^2).

WATER-DISCHARGE RECORDS

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.
REVISED RECORDS.--WSP 1117: 1947, drainage area. WSP 1281: 1932(M), 1934(M), 1936-38(M), 1941-42(P), 1944-46(M).
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.
REMARKS.--Water-discharge records fair except those for winter period, which are poor. Diversions for irrigation of small acreage and mountain meadows above station.
AVERAGE DISCHARGE.--57 years (water years 1916-17, 1920, 1928-81), 17.9 ft^3/s (0.507 m^3/s), 12,970 acre-ft/yr (16.0 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD (SINCE 1926).--Maximum discharge, 12,600 ft^3/s (357 m^3/s) June 17, 1965, gage height, 15.25 ft (4.648 m), from rating curve extended above 400 ft^3/s (11 m^3/s) on basis of slope-area measurement of peak flow; no flow at times.
EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred Aug. 2, 1921, when discharge probably exceeded 10,000 ft^3/s (280 m^3/s).
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft^3/s (23 m^3/s) and maximum (*), from rating curve extended above 130 ft^3/s (3.7 m^3/s) as explained above:

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
July 1	1830	835	23.6	5.65	1.722	Aug. 28	0045	1650	46.7	6.69	2.039
Aug. 10	2200	1860	52.7	6.95	2.118	Aug. 28	2200	948	26.8	5.83	1.777
Aug. 12	0300	2250	63.7	7.44	2.268	Sept. 3	1930	1150	32.6	6.06	1.847
Aug. 15	1730	*2520	71.4	7.77	2.368	Sept. 7	0930	1250	35.4	6.19	1.887
Aug. 20	2330	849	24.0	5.70	1.737						

Minimum discharge, 0.41 ft^3/s (0.012 m^3/s) June 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	5.3	4.7	3.5	3.3	2.9	2.3	3.4	12	90	8.6	28
2	1.6	5.5	4.7	3.0	3.0	3.3	2.3	4.1	14	58	9.2	22
3	1.7	6.1	5.0	2.5	2.6	3.1	2.5	4.9	13	56	8.0	191
4	1.7	5.6	5.0	3.3	2.6	3.2	2.7	5.4	15	50	8.9	125
5	1.8	5.3	5.0	3.0	2.8	2.6	4.0	10	16	25	23	90
6	2.0	5.0	5.0	2.0	3.0	2.4	3.3	9.3	16	15	74	38
7	1.8	4.9	4.0	2.2	3.0	2.8	3.3	6.9	14	12	111	361
8	1.7	4.8	3.5	2.0	2.5	3.3	2.8	4.9	12	10	51	87
9	1.6	5.1	2.5	2.2	2.0	3.5	2.7	5.0	6.5	10	39	58
10	1.6	5.2	2.0	2.7	1.5	3.6	2.8	5.6	4.1	15	236	54
11	1.7	5.0	2.5	3.3	2.2	4.7	2.5	5.3	3.7	20	212	66
12	3.5	5.4	3.0	3.3	2.5	4.5	4.7	4.3	3.4	108	768	130
13	3.5	4.8	4.0	3.3	2.5	4.0	6.4	4.0	2.3	58	96	50
14	3.1	5.3	3.5	2.8	2.5	4.5	4.5	4.5	2.4	28	56	44
15	3.4	4.5	3.3	3.0	2.8	4.8	4.7	5.2	2.9	27	377	59
16	4.7	3.0	3.5	2.7	3.0	4.0	5.6	6.3	2.6	20	117	53
17	5.5	2.5	4.0	2.6	3.0	3.4	5.3	6.8	2.5	23	163	41
18	4.7	2.5	4.5	2.7	3.0	3.4	8.2	7.4	2.4	32	140	36
19	4.9	2.5	4.0	2.5	3.0	3.3	10	6.3	1.8	45	101	33
20	4.9	2.5	3.0	2.3	3.0	2.9	9.1	3.7	1.7	16	88	29
21	4.4	2.5	3.3	3.3	2.9	2.7	9.6	3.5	1.8	11	105	25
22	4.5	2.5	4.0	2.3	2.1	2.7	9.1	3.0	2.2	9.6	47	24
23	4.6	2.5	3.5	3.0	2.4	3.0	8.2	3.0	2.3	8.1	44	24
24	5.3	2.6	3.7	3.0	2.4	2.8	6.0	4.0	3.0	11	42	25
25	4.7	2.0	4.0	3.3	2.4	2.6	4.7	4.2	2.8	9.0	37	25
26	5.3	2.0	4.5	2.8	2.7	2.3	4.0	3.7	2.1	41	28	21
27	5.6	2.5	5.5	3.0	2.4	2.3	4.0	3.0	1.2	25	116	20
28	5.4	3.0	6.0	3.7	2.4	2.4	4.5	3.3	2.0	13	322	19
29	5.4	3.5	5.3	4.0	---	2.6	4.2	5.9	3.2	11	86	18
30	6.2	4.0	4.5	2.8	---	2.5	4.3	16	21	13	43	17
31	5.4	---	4.0	3.3	---	2.5	---	12	---	8.5	36	---
TOTAL	114.0	117.9	125.0	89.4	73.5	98.6	148.3	174.9	189.9	878.2	3592.7	1813
MEAN	3.68	3.93	4.03	2.88	2.63	3.18	4.94	5.64	6.33	28.3	116	60.4
MAX	6.2	6.1	6.0	4.0	3.3	4.8	10	16	21	108	768	361
MIN	1.6	2.0	2.0	2.0	1.5	2.3	2.3	3.0	1.2	8.1	8.0	17
AC-FT	226	234	248	177	146	196	294	347	377	1740	7130	3600

CAL YR 1980 TOTAL 7430.4 MEAN 20.3 MAX 248 MIN 1.6 AC-FT 14740
WTR YR 1981 TOTAL 7415.4 MEAN 20.3 MAX 768 MIN 1.2 AC-FT 14710

07203000 VERMEJO RIVER NEAR DAWSON, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1945-51, 1964 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT											
16...	1020	3.6	476	8.4	--	4.5	--	--	--	--	--
FEB											
02...	1420	2.8	511	8.4	--	1.0	200	40	--	57	14
MAR											
04...	0915	3.1	477	8.4	--	2.0	--	--	--	--	--
APR											
01...	1408	2.4	498	8.5	--	4.0	--	--	--	--	--
29...	1530	4.5	445	8.6	--	14.0	170	--	37	47	12
MAY											
28...	1500	2.7	485	8.4	22.0	21.0	180	--	43	50	14
JUN											
25...	1025	2.9	487	8.5	28.0	23.5	--	--	--	--	--
JUL											
22...	1545	9.8	400	8.5	35.0	24.0	--	--	--	--	--
AUG											
19...	0915	91	317	8.5	16.5	13.0	120	--	8.0	33	8.6
SEP											
16...	1130	49	360	8.5	16.5	14.0	--	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
OCT											
16...	--	--	--	--	--	--	--	--	--	--	--
FEB											
02...	36	1.1	1.8	--	94	5.5	.6	8.8	314	10	10
MAR											
04...	--	--	--	--	--	--	--	--	--	--	--
APR											
01...	--	--	--	--	--	--	--	--	--	--	--
29...	28	.9	1.9	130	89	4.5	.7	8.0	269	20	10
MAY											
28...	30	1.0	2.7	140	100	6.6	.7	7.7	296	10	<10
JUN											
25...	--	--	--	--	--	--	--	--	--	--	--
JUL											
22...	--	--	--	--	--	--	--	--	--	--	--
AUG											
19...	20	.9	3.0	110	30	16	.4	12	189	10	99
SEP											
16...	--	--	--	--	--	--	--	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
APR										
29...	1530	0	1	20	1	<1	0	0	2	1
MAY										
28...	1500	2	0	10	1	<1	20	10	4	1

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
APR									
29...	10	3	1	.1	.0	0	1	30	3
MAY									
28...	<10	1	1	.1	.0	0	1	20	3

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)
OCT												
16...	1020	3.6	4.5	8	.08	--	--	--	--	--	--	--
JAN												
08...	1030	1.5	.5	645	2.6	--	--	--	--	--	--	--
FEB												
02...	1420	2.8	1.0	5	.04	--	--	--	--	--	--	--
MAR												
04...	0915	3.1	2.0	1	.01	--	--	--	--	--	--	--
APR												
01...	1408	2.4	4.0	4	.03	--	--	--	--	--	--	--
29...	1530	4.5	14.0	3	.04	--	--	--	--	--	--	--
MAY												
28...	1500	2.7	21.0	11	.08	--	--	--	--	--	--	--
JUN												
25...	1025	2.9	23.5	17	.13	--	--	--	--	--	--	--
AUG												
19...	0915	91	13.0	2030	499	--	--	--	84	--	--	--
SEP												
16...	1130	49	14.0	1370	181	63	80	94	97	98	99	100

07203505 VERMEJO DITCH NEAR COLFAX, NM

LOCATION.--Lat 36°34'42", long 104°41'33", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, on right bank 2.8 mi (4.5 km) southeast of Colfax, and 5.7 mi (9.2 km) downstream from head.
PERIOD OF RECORD.--December 1980 to September 1981.
GAGE.--Water-stage recorder. Altitude of gage is 6,155 ft (1,875 m), from topographic map.
REMARKS.--Records poor. Vermejo ditch diverts water from Vermejo River for use on the Vermejo Project. Three small diversions from Vermejo ditch upstream from gage. Several observations of water temperature were made during the year.
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge during period December 1980 to September 1981, 100 ft^3/s (2.8 m^3/s) Aug. 12; no flow June 13-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			---	2.0	2.5	1.8	2.1	2.4	5.5	43	8.5	15
2			---	1.5	2.0	1.4	1.9	2.7	1.9	59	44	10
3			---	1.0	1.5	1.8	1.9	2.5	2.3	84	54	70
4			---	2.0	1.5	1.6	2.2	3.2	1.6	72	55	50
5			---	2.0	2.0	1.4	2.3	3.9	2.2	27	22	30
6			---	1.0	2.0	1.6	2.5	9.0	2.9	13	30	20
7			---	1.0	2.0	1.7	1.7	5.6	6.7	9.5	49	75
8			---	1.0	1.5	1.7	1.2	4.1	2.4	10	30	50
9			---	1.0	1.0	2.1	1.4	3.7	.67	4.1	10	40
10			---	1.5	1.0	2.2	.93	3.8	.71	3.8	40	30
11			---	2.0	1.5	3.1	.96	4.1	.57	7.1	20	40
12			---	2.0	2.0	3.2	.85	3.5	.09	78	100	60
13			---	2.0	2.0	2.3	1.7	2.7	.00	66	50	45
14			---	2.0	1.5	3.6	2.7	2.8	.00	47	30	40
15			---	2.5	2.0	3.0	2.5	3.0	.00	43	95	40
16			---	2.0	2.0	2.7	2.3	4.3	.00	21	50	50
17			---	2.0	2.0	2.5	2.5	4.4	.00	29	95	39
18			---	1.5	2.0	2.2	2.8	5.1	.00	35	90	35
19			---	1.5	2.1	2.2	4.5	5.3	.00	6.5	57	31
20			1.5	1.0	2.0	2.1	4.4	3.8	.00	2.8	63	28
21			2.5	2.0	1.9	2.1	2.9	2.7	.00	1.8	93	28
22			3.0	1.0	1.5	2.2	2.4	2.1	.00	1.4	79	28
23			2.5	2.0	1.4	2.4	3.2	2.0	.00	1.3	79	26
24			2.5	2.0	1.5	2.6	1.5	2.2	.00	3.7	63	25
25			3.0	2.5	1.3	2.6	2.4	3.2	.00	10	30	25
26			4.0	2.0	1.3	2.2	2.8	2.9	.00	4.8	20	24
27			4.5	2.0	1.4	2.0	2.3	1.8	.00	6.1	40	23
28			5.0	2.5	1.2	1.9	2.8	.46	.00	3.8	79	21
29			4.5	3.0	---	2.4	3.3	.25	.23	8.6	64	20
30			2.5	2.0	---	2.1	3.0	18	1.2	3.9	30	20
31			2.0	2.5	---	1.8	---	11	---	3.6	20	---
TOTAL			---	56.0	47.6	68.5	69.94	126.51	28.97	709.8	1589.5	1038
MEAN			---	1.81	1.70	2.21	2.33	4.08	.97	22.9	51.3	34.6
MAX			---	3.0	2.5	3.6	4.5	18	6.7	84	100	75
MIN			---	1.0	1.0	1.4	.85	.25	.00	1.3	8.5	10
AC-FT			---	111	94	136	139	251	57	1410	3150	2060

07204000 MORENO CREEK AT EAGLE NEST, NM

LOCATION.--Lat 36°33'14", long 105°16'03", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on right bank 175 ft (53 m) upstream from U.S. Highway 64, 250 ft (76 m) northwest of intersection of U.S. Highway 64 and State Highway 38, about 1,000 ft (300 m) upstream from high-water line of Eagle Nest Lake at Eagle Nest.
DRAINAGE AREA.--73.8 mi^2 (191.1 km^2).
PERIOD OF RECORD.--April 1928 to October 1955 and June 1964 to current year (no winter records except water year 1932). 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.
REVISED RECORDS.--WSP 1281: 1931(M), 1932, 1935(M), 1939-41(M), 1946-47(M). WSP 1921: Drainage area. See also PERIOD OF RECORD.
GAGE.--Water-stage recorder. Concrete control since Oct. 3, 1952. Datum of gage is 8,197.39 ft (2,498.564 m) National Geodetic Vertical Datum of 1929. See WSP 1921 for history of changes prior to Oct. 26, 1955. Oct. 26, 1955, to Nov. 12, 1974, water-stage recorder at site 160 ft (49 m) downstream at datum 1.41 ft (0.430 m) lower.
REMARKS.--Records good. Diversions for irrigation of about 1,200 acres (4.9 km^2) above station. Several observations of water temperature were made during the year.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 240 ft^3/s (6.80 m^3/s) Sept. 1, 1946, gage height, 3.10 ft (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.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 29 ft^3/s (0.82 m^3/s) Aug. 2, gage height, 2.38 ft (0.725 m), no peak above base of 35 ft^3/s (0.99 m^3/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.29	1.1					.83	.58	1.1	.00	.00	.07
2	.28	1.1					.80	.58	1.1	.14	2.9	.10
3	.27	1.0					.87	.59	1.0	.08	.35	.06
4	.26	1.1					.81	.53	1.4	.02	.04	.05
5	.26	1.0					.79	.62	1.1	.02	.01	.14
6	.26	1.0					.87	.73	1.3	.01	.00	.09
7	.28	1.0					1.4	.59	.95	.00	.02	.19
8	.28	.94					.68	.51	.55	.00	.07	.34
9	.28	.77					.65	.49	.35	.00	.61	.23
10	.27	.67					.72	.46	.24	.00	.26	.25
11	.26	.67					.95	.55	.21	.00	1.0	.32
12	.26	.72					.96	1.0	.13	.00	1.6	.23
13	.26	.82					1.2	1.1	.08	.00	.83	.23
14	.26	---					1.4	1.2	.03	.00	.30	.23
15	.38	---					1.5	.99	.01	.00	.27	.19
16	.58	---					1.3	1.3	.00	.00	.87	.21
17	.77	---					1.3	1.8	.00	.00	1.1	.21
18	.67	---					1.3	1.8	.00	.00	.78	.19
19	.67	---					1.4	1.5	.00	.00	.58	.18
20	.67	---					1.3	1.3	.00	.00	.36	.16
21	.72	---					1.2	1.1	.00	.00	.79	.13
22	.72	---					1.0	.90	.00	.00	1.0	.12
23	.72	---					1.0	.76	.00	.00	.33	.11
24	.67	---					.95	.78	.00	.00	.22	.13
25	.67	---					.88	.77	.00	.00	.14	.13
26	.72	---					.76	.71	.00	.00	.13	.12
27	1.0	---					.69	.57	.00	.00	.14	.09
28	1.0	---					.70	.45	.00	.00	.13	.05
29	1.1	---					.63	.59	.00	.00	.13	.04
30	1.1	---					.61	1.5	.00	.00	.10	.00
31	1.0	---					---	1.4	---	.00	.07	---
TOTAL	16.92	---					29.45	27.75	9.55	.27	15.13	4.59
MEAN	.55	---					.98	.90	.32	.009	.49	.15
MAX	1.1	---					1.5	1.8	1.4	.14	2.9	.34
MIN	.26	---					.61	.45	.00	.00	.00	.00
AC-FT	34	---					58	55	19	.5	30	9.1

07204500 CIENEGUILLA CREEK NEAR EAGLE NEST, NM

LOCATION.--Lat 36°29'07", long 105°15'54", Colfax County, Hydrologic Unit 11080002, 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 and June 1964 to current year (no winter records except in water years 1932, 1948 and 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.

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

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.

REMARKS.--Records good. Diversions for irrigation of about 1,000 acres (4.0 km^2) above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 505 ft^3/s (14.3 m^3/s) June 16, 1965, gage height, 5.61 ft (1.710 m), from rating curve extended above 110 ft^3/s (3.1 m^3/s); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7.2 ft^3/s (0.20 m^3/s) Sept. 18, gage height, 2.76 ft (0.841 m), no peak above base of 70 ft^3/s (2.0 m^3/s); minimum determined, 0.02 ft^3/s (0.0006 m^3/s) June 22-24, 27-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	3.0					3.6	1.5	1.2	.67	.26	3.1
2	1.4	2.9					3.5	2.3	1.2	.71	.24	2.3
3	1.4	2.7					3.8	2.3	1.7	.42	.42	1.1
4	1.4	2.7					3.1	1.8	2.7	.31	.52	.99
5	1.4	2.8					3.1	2.1	1.9	.18	.34	2.2
6	1.5	2.8					3.4	3.0	1.4	.16	.30	1.8
7	1.6	2.8					4.0	1.9	.98	.15	.40	2.4
8	1.6	2.7					4.0	1.3	.59	.22	.85	2.9
9	1.6	2.7					4.3	1.1	.39	.21	.88	3.0
10	1.6	2.6					4.6	1.1	.27	.27	.71	2.4
11	1.7	2.6					4.3	.97	.22	.61	1.5	1.8
12	1.7	2.7					4.1	.83	.15	.69	2.6	2.3
13	1.7	---					5.0	1.0	.10	.41	2.4	2.3
14	1.8	---					5.7	.92	.09	.29	1.3	2.1
15	2.4	---					4.2	.87	.07	.23	1.2	1.6
16	2.7	---					4.1	1.5	.06	.26	1.2	1.6
17	3.4	---					3.9	2.5	.05	.25	1.1	1.9
18	3.1	---					3.4	2.2	.04	.18	1.2	4.3
19	2.9	---					3.3	1.8	.03	.16	.80	2.6
20	2.7	---					3.2	1.4	.03	.12	.84	1.7
21	2.7	---					2.7	1.1	.03	.08	.87	1.4
22	2.6	---					2.6	.95	.02	.07	.78	1.3
23	2.6	---					2.5	.90	.02	.06	.68	1.4
24	2.5	---					2.2	.85	.02	.09	.58	1.4
25	2.6	---					2.1	.80	.03	.09	.46	1.2
26	2.6	---					1.8	.78	.03	.28	.82	1.1
27	3.0	---					1.7	.69	.02	.32	.78	.97
28	3.0	---					1.7	.82	.02	.20	1.4	.87
29	3.2	---					1.7	1.0	.02	.18	1.4	.90
30	3.0	---					1.5	1.3	.10	.20	.91	.90
31	3.1	---					---	1.2	---	.21	.79	---
TOTAL	70.0	---					99.1	42.78	13.48	8.28	28.53	55.83
MEAN	2.26	---					3.30	1.38	.45	.27	.92	1.86
MAX	3.4	---					5.7	3.0	2.7	.71	2.6	4.3
MIN	1.4	---					1.5	.69	.02	.06	.24	.87
AC-FT	139	---					197	85	27	16	57	111

07205000 SIXMILE CREEK NEAR EAGLE NEST, NM

LOCATION.--Lat 36°31'07", long 105°16'29", Colfax County, Hydrologic Unit 11080002, 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 mi^2 (27.2 km^2).

PERIOD OF RECORD.--April 1928 to September 1955 (no winter records in water years 1929-31, 1933-55), July 1958 to current year (no winter records subsequent to water year 1975). 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 Therma" 1928-34.

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

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) National Geodetic Vertical Datum of 1929. 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.

REMARKS.--Records good. Diversions for irrigation of about 300 acres (1.2 km^2) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--18 years (water years 1932, 1959-75), 2.51 ft^3/s (0.071 m^3/s), 1,820 acre-ft/yr (2.24 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD (1930-55 and SINCE 1957).--Maximum discharge, 128 ft^3/s (3.62 m^3/s) Aug. 5, 1969, gage height, 2.86 ft (0.871 m), from rating curve extended above 32 ft^3/s (0.91 m^3/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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 75 ft^3/s (2.12 m^3/s) at 1445 hours Aug. 3, gage height, 2.17 ft (0.661 m), no other peak above base of 15 ft^3/s (0.4 m^3/s); no flow for part of June 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.6					.97	1.1	1.7	.22	.26	1.1
2	1.3	1.6					.87	1.3	1.7	.14	.31	.86
3	1.3	1.6					.99	1.5	1.7	.08	6.4	.76
4	1.3	1.5					.84	1.4	1.4	.06	.86	.75
5	1.3	1.5					.90	1.6	1.8	.04	.54	.88
6	1.3	1.6					.98	1.6	2.0	.04	.49	.76
7	1.3	1.5					.98	1.4	1.6	.08	.55	.95
8	1.4	1.5					.98	1.3	1.5	.09	.65	.95
9	1.4	1.4					.74	1.3	1.4	.07	.53	2.0
10	1.4	1.4					.76	1.3	1.3	.05	.44	1.1
11	1.4	1.5					.74	1.2	.94	.22	1.3	.76
12	1.4	1.5					.73	1.2	1.2	.12	1.7	.68
13	1.4	1.5					1.0	1.3	1.1	.06	.93	.61
14	1.4	---					1.1	1.2	1.1	.04	.66	.67
15	1.7	---					.92	1.3	1.0	.10	.62	.65
16	1.8	---					.93	1.5	.18	.13	.99	.70
17	1.7	---					.88	1.7	.11	.14	.79	.91
18	1.6	---					.84	1.6	.11	.13	.63	.79
19	1.6	---					.89	1.5	.10	.12	.57	.70
20	1.6	---					.82	1.4	.08	.09	1.1	.65
21	1.6	---					.78	1.3	.06	.07	1.1	.60
22	1.6	---					.76	1.3	.06	.07	2.1	.56
23	1.5	---					.76	1.3	.08	.08	1.4	.56
24	1.4	---					.66	1.3	.08	.10	1.0	.57
25	1.5	---					.59	1.3	.07	.11	.84	.55
26	1.5	---					.52	1.6	.06	.31	.83	.52
27	1.5	---					.53	1.5	.04	.29	.92	.51
28	1.8	---					1.1	1.6	.03	.24	1.5	.50
29	1.4	---					1.1	1.6	.32	.22	1.2	.48
30	1.7	---					1.1	1.8	.13	.20	1.1	.49
31	1.6	---					---	1.6	---	.22	1.1	---
TOTAL	46.0	---					25.76	43.9	22.95	3.93	33.41	22.57
MEAN	1.48	---					.86	1.42	.77	.13	1.08	.75
MAX	1.8	---					1.1	1.8	2.0	.31	6.4	2.0
MIN	1.3	---					.52	1.1	.03	.04	.26	.48
AC-FT	91	---					51	87	46	7.8	66	45

07205500 EAGLE NEST LAKE NEAR EAGLE NEST, NM

LOCATION.--Lat 36°31'53", long 105°13'44", Colfax County, Hydrologic Unit 11080002, 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 mi^2 (433 km^2).
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.
REVISED RECORDS.--WSP 1281: Drainage area.
GAGE.--Nonrecording gage usually read several times a month at random intervals. Datum of gage is 8,056.8 ft (2,455.71 m) National Geodetic Vertical Datum of 1929. Prior to October 1964 gage heights were raised by addition of 8,000 ft (2,438.4 m) and called elevations.
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 hm^3) 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 km^2) above reservoir.
COOPERATION.--Supplemental gage readings furnished by employee of Springer Land and Cattle Co. and by Cimarron River watermaster.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 78,800 acre-ft (97.2 hm^3) May 31, 1942, gage height, 136.9 ft (41.73 m); minimum observed, 635 acre-ft (783,000 m^3) Dec. 14, 1954, gage height, 61.33 ft (18.693 m).
EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 40,660 acre-ft (50.1 hm^3) Oct. 6, gage height, 118.04 ft (35.979 m); minimum observed, 30,640 acre-ft (37.8 km^3) Aug. 3, gage height, 111.30 ft (33.924 m).

Capacity table (gage height in feet, and contents, in acre-feet)
(Based on data furnished by New Mexico State Engineer Office in 1950)

110	28,900
115	35,920
120	43,940

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	39470	39550	---	---	---	---	34670	---	---	31190
2	---	---	---	---	39940	40010	---	---	---	---	---	---
3	---	39150	---	---	---	40040	---	---	---	---	30640	---
4	---	---	---	---	---	---	---	37510	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	30670	---
6	40660	---	---	39600	---	---	39790	---	---	32310	---	---
7	---	---	---	---	---	---	---	---	---	---	---	31330
8	---	---	39280	---	---	---	---	---	34670	32140	---	---
9	---	---	---	---	---	39960	---	---	---	---	---	---
10	---	39150	---	---	---	---	---	---	---	---	30920	---
11	---	---	---	---	---	---	---	36370	34580	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	40360	39120	---	---	---	---	39470	---	---	31880	---	---
14	40120	---	---	---	---	---	---	---	---	---	---	31470
15	---	---	---	---	---	---	---	---	34160	---	---	---
16	---	---	---	---	---	40120	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	31120	---
18	---	---	---	---	---	---	---	35550	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	40080	---	---	---	---	---	39100	35210	---	31400	---	---
21	---	---	---	---	---	---	---	---	33220	---	---	31400
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	40200	---	---	---	---	---	---
24	---	---	---	---	40040	---	---	---	---	---	31260	---
25	---	---	---	---	---	---	---	34960	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	38520	---	---	30980	---	---
28	39470	---	---	---	40000	---	---	---	---	---	---	31400
29	---	---	---	---	---	---	---	---	32450	---	---	---
30	---	39400	---	---	---	40050	38000	---	32400	---	---	31300
31	39300	---	39550	39900	---	39870	---	34700	---	30800	31260	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---
(†)	---	---	117.35	---	---	117.55	---	---	---	---	111.75	111.78
(‡)	-1600	+100	+150	+350	+100	-130	-1870	-3300	-2300	-1600	+460	+40

CAL YR 1980..... ‡ +5400
WTR YR 1981..... ‡ -9600

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.
NOTE.--Monthend contents interpolated or estimated on basis of inflow to and releases from Lake Oct. 31, Nov. 30, Jan. 31, Feb. 28, Apr. 30, May 31, June 30, July 31.

07206000 CIMARRON RIVER BELOW EAGLE NEST DAM, NM

LOCATION.--Lat 36°31'55", long 105°13'43", Colfax County, Hydrologic Unit 11080002, 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 mi^2 (433 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1950 to current year. Published as Cimarron Creek below Eagle Nest Dam October 1952 to September 1965.
REVISED RECORDS.--WSP 1281: Drainage area.
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.
REMARKS.--Water-discharge records good except those for winter period, which are poor. Flow regulated by Eagle Nest Lake (station 07205500). Diversions for irrigation of 2,500 acres (10 km^2) above station.
AVERAGE DISCHARGE.--31 years, 13.7 ft^3/s (0.388 m^3/s), 9,930 acre-ft/yr (12.2 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 205 ft^3/s (5.81 m^3/s) June 14, 1955, gage height, 2.79 ft (0.850 m); no flow at times most years.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 93 ft^3/s (2.63 m^3/s) May 6, gage height, 1.79 ft (0.546 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	23	.02	.00	.02	15	15	86	12	19	17	.05
2	24	23	.02	.00	.02	16	18	86	9.8	2.0	23	.05
3	22	13	.02	.00	.02	9.4	20	89	9.8	2.0	12	.05
4	21	.11	.02	.00	.02	9.4	20	92	9.8	5.3	2.2	.05
5	21	.11	.02	.00	.02	9.1	20	92	9.5	26	4.5	.07
6	21	.11	.02	.00	.02	8.6	20	88	9.4	29	5.7	.11
7	21	.11	.02	.00	.02	8.2	19	80	11	33	5.7	.11
8	22	.11	.02	.00	.02	8.2	19	80	15	35	5.6	.11
9	22	.11	.01	.00	.02	7.8	19	72	16	35	7.0	.18
10	22	.11	.01	.00	.02	12	19	63	27	35	6.8	.14
11	22	.11	.01	.00	.02	5.5	19	61	31	35	2.8	.11
12	21	.11	.01	.00	.02	.18	27	61	31	34	.52	.12
13	22	.11	.01	.00	.02	.16	31	61	31	33	.47	.11
14	22	.11	.01	.00	.02	.11	31	61	40	27	.33	.11
15	22	.11	.01	.00	.02	.11	31	50	46	24	.33	.11
16	21	.11	.01	.00	.02	.11	31	45	46	24	.33	.08
17	22	.11	.01	.00	.02	.08	31	45	46	24	.37	.08
18	24	.11	.01	.00	.02	.11	31	41	46	24	.39	.08
19	24	.08	.01	.00	.02	.11	31	35	46	26	.25	.08
20	24	.08	.01	.00	.02	.08	34	35	46	28	.25	.08
21	24	.08	.01	.00	.08	.11	34	35	53	28	.25	.07
22	23	.08	.01	.00	.18	.11	34	34	60	28	.25	.07
23	30	.05	.01	.00	.18	9.5	34	31	61	28	.25	.07
24	37	.02	.01	.01	.18	9.4	34	31	61	26	.18	.07
25	37	.02	.01	.01	.18	9.4	34	31	62	13	.18	.07
26	37	.02	.01	.02	.18	9.4	55	31	59	33	.18	.05
27	33	.02	.01	.02	.18	9.4	75	27	40	30	.18	.05
28	29	.02	.01	.02	.18	9.4	81	25	40	17	.18	.05
29	29	.02	.01	.02	---	14	89	25	37	17	.18	.05
30	25	.02	.01	.02	---	15	87	20	36	17	.09	.05
31	23	---	.01	.02	---	15	---	16	---	17	.05	---
TOTAL	771	61.16	.39	.14	1.74	210.97	1043	1629	1047.3	754.3	97.51	2.48
MEAN	24.9	2.04	.013	.005	.062	6.81	34.8	52.5	34.9	24.3	3.15	.083
MAX	37	23	.02	.02	.18	16	89	92	62	35	23	.18
MIN	21	.02	.01	.00	.02	.08	15	16	9.4	2.0	.05	.05
AC-FT	1530	121	.8	.3	3.5	418	2070	3230	2080	1500	193	4.9

CAL YR 1980 TOTAL 5805.92 MEAN 15.9 MAX 84 MIN .00 AC-FT 11520
WTR YR 1981 TOTAL 5618.99 MEAN 15.4 MAX 92 MIN .00 AC-FT 11150

ARKANSAS RIVER BASIN
07206000 CIMARRON RIVER BELOW EAGLE NEST DAM, NM -- Continued
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1975 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
OCT											
14...	1615	22	347	7.8	--	13.0	--	--	--	--	--
FEB											
02...	1110	E.02	255	8.0	--	1.0	--	--	--	--	--
MAR											
02...	1200	13	322	8.0	--	4.0	--	--	--	--	--
31...	0940	16	319	8.3	--	9.5	--	--	--	--	--
MAY											
20...	1400	35	320	8.0	19.0	11.0	160	18	49	8.7	11
JUN											
11...	1300	30	320	8.1	27.0	13.0	--	--	--	--	--
JUL											
08...	1230	35	380	8.0	22.0	17.5	--	--	--	--	--
AUG											
05...	1515	5.8	350	8.0	21.5	17.0	150	15	47	9.1	11
SEP											
01...	1245	E.03	390	7.4	19.0	15.0	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
OCT										
14...	--	--	--	--	--	--	--	--	--	--
FEB										
02...	--	--	100	15	4.4	.3	12	--	10	--
MAR										
02...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
MAY										
20...	.4	2.5	140	13	4.9	.3	8.9	183	40	20
JUN										
11...	--	--	--	--	--	--	--	--	--	--
JUL										
08...	--	--	--	--	--	--	--	--	--	--
AUG										
05...	.4	2.8	140	1.0	12	.4	13	181	20	11
SEP										
01...	--	--	--	--	--	--	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
MAY										
20...	1400	5	3	40	0	<1	10	0	4	3

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
MAY									
20...	20	10	1	.0	.0	0	0	10	0

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAR						
31...	0940	16	9.5	18	.78	--
MAY						
20...	1400	35	11.0	17	1.6	75

07207000 CIMARRON RIVER NEAR CIMARRON, NM

LOCATION.--Lat 36°31'11", long 104°58'42", Colfax County, Hydrologic Unit 11080002, 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 mi^2 (761 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1950 to current year. Published as Cimarron Creek near Cimarron, October 1952 to September 1965.
REVISED RECORDS.--WSP 1281: Drainage area.
GAGE.--Water-stage recorder. Concrete control since Nov. 6, 1963. Datum of gage is 6,599.58 ft (2,011.552 m) National Geodetic Vertical Datum of 1929.
REMARKS.--Water-discharge records good except those for winter period, which are poor. Flow regulated by Eagle Nest Lake (station 07205500). Diversions above station for irrigation of about 3,500 acres (14 km^2), 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. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--31 years, 20.7 ft^3/s (0.586 m^3/s), 15,000 acre-ft/yr (18.5 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft^3/s (439 m^3/s) June 17, 1965, gage height, 12.42 ft (3.786 m), from floodmark, from rating curve extended above 800 ft^3/s (23 m^3/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.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 436 ft^3/s (12.3 m^3/s) Aug. 6, gage height, 3.36 ft (1.024 m); minimum, 0.28 ft^3/s (0.008 m^3/s) Jan. 20, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	25	4.8	3.6	3.0	2.5	15	70	17	35	16	3.4
2	23	25	4.6	3.4	2.9	13	16	71	13	14	21	2.9
3	23	25	4.6	3.6	2.6	11	19	72	13	8.3	22	3.7
4	21	13	4.4	3.6	2.3	9.3	19	76	13	6.0	10	3.7
5	21	8.7	4.3	4.0	2.3	10	20	79	12	9.7	5.5	3.5
6	21	7.1	4.3	3.2	2.4	9.7	20	79	11	18	35	5.6
7	21	6.3	4.3	3.0	2.4	10	20	70	10	21	9.5	5.5
8	21	5.7	4.6	3.3	2.5	9.4	20	69	12	24	7.9	5.4
9	21	5.3	4.4	3.1	2.6	10	21	68	14	24	8.3	5.3
10	21	5.1	4.2	2.8	2.4	11	21	58	18	23	15	5.9
11	21	5.8	4.5	2.9	2.1	15	21	55	24	24	67	6.0
12	21	5.7	4.7	2.7	2.3	9.3	22	55	24	25	42	5.7
13	21	5.7	4.0	2.8	2.3	6.6	30	55	24	23	9.6	5.4
14	21	6.3	4.4	2.7	2.4	6.1	30	54	26	22	6.0	5.2
15	21	6.4	4.7	2.7	2.8	5.3	30	51	35	23	5.0	5.3
16	21	5.9	4.4	2.7	2.7	5.0	31	43	38	22	4.6	5.3
17	20	5.8	4.3	2.5	3.0	4.8	31	42	42	22	5.2	5.5
18	18	5.2	4.2	2.4	2.4	4.4	32	41	42	22	7.2	5.2
19	17	5.0	4.2	2.6	2.2	4.3	32	34	42	21	5.7	4.7
20	17	5.4	4.1	2.5	2.2	4.3	32	33	42	23	5.2	4.5
21	18	5.4	3.9	2.5	2.3	4.1	34	32	43	23	4.8	4.2
22	18	6.0	4.1	2.5	2.3	4.0	35	31	51	22	5.4	3.9
23	19	5.6	4.3	2.7	2.1	4.1	35	29	53	23	4.3	3.9
24	27	5.3	4.4	2.8	2.3	7.9	34	29	54	23	3.7	3.8
25	28	4.8	4.4	2.7	2.3	9.0	35	28	54	17	3.1	3.6
26	28	4.6	4.4	2.4	2.3	9.5	40	27	54	18	2.9	3.3
27	28	5.0	4.0	2.5	2.2	9.7	59	26	42	34	3.4	3.2
28	25	5.0	3.9	2.6	2.3	10	69	23	37	17	3.7	3.0
29	29	5.6	3.9	2.9	---	11	72	23	37	17	3.8	2.9
30	29	5.2	3.7	2.7	---	14	70	25	35	16	3.0	2.7
31	25	---	3.8	3.0	---	15	---	18	---	16	2.9	---
TOTAL	688	235.9	132.8	89.4	67.9	259.3	965	1466	932	636.0	348.7	132.2
MEAN	22.2	7.86	4.28	2.88	2.43	8.36	32.2	47.3	31.1	20.5	11.2	4.41
MAX	29	25	4.8	4.0	3.0	15	72	79	54	35	67	6.0
MIN	17	4.6	3.7	2.4	2.1	2.5	15	18	10	6.0	2.9	2.7
AC-FT	1360	468	263	177	135	514	1910	2910	1850	1260	692	262
(†)	107	0	0	0	0	0	24	372	216	126	0	0

CAL YR 1980 TOTAL 9943.1 MEAN 27.2 MAX 104 MIN 3.7 AC-FT 19720 † 711
WTR YR 1981 TOTAL 5953.2 MEAN 16.3 MAX 79 MIN 2.1 AC-FT 11810 † 845

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

07207000 CIMARRON RIVER NEAR CIMARRON, NM --continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979, 1981.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
NOV											
12...	1150	5.7	394	8.6	--	6.0	14	160	24	--	50
FEB											
02...	1300	4.5	482	8.3	--	.5	--	210	39	--	64
MAR											
02...	1400	16	327	8.0	--	4.0	--	--	--	--	--
APR											
02...	1240	15	363	8.3	--	--	--	--	--	--	--
29...	1315	73	335	8.2	--	14.5	--	--	--	--	--
MAY											
29...	1325	21	365	8.6	25.5	16.0	32	150	--	.00	46
JUN											
26...	1200	56	310	8.4	28.0	17.5	--	--	--	--	--
JUL											
23...	1600	22	350	8.4	26.0	19.5	--	--	--	--	--
AUG											
19...	1615	5.6	360	8.4	26.0	23.0	--	160	--	17	47
SEP											
16...	1740	5.2	280	8.3	14.0	13.0	--	--	--	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
NOV										
12...	9.6	17	.6	1.8	--	49	8.1	.4	10	230
FEB										
02...	12	22	.7	1.4	170	63	11	.3	14	290
MAR										
02...	--	--	--	--	--	--	--	--	--	--
APR										
02...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
MAY										
29...	8.6	13	.5	2.6	150	27	8.0	.4	10	206
JUN										
26...	--	--	--	--	--	--	--	--	--	--
JUL										
23...	--	--	--	--	--	--	--	--	--	--
AUG										
19...	9.6	18	.7	1.8	140	31	8.9	.3	14	215
SEP										
16...	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV										
12...	.00	.00	.090	.47	.56	.020	.000	50	<10	5.6
FEB										
02...	--	--	--	--	--	--	--	20	10	--
MAR										
02...	--	--	--	--	--	--	--	--	--	--
APR										
02...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
MAY										
29...	.00	.00	.110	.73	.84	.090	.020	10	10	3.9
JUN										
26...	--	--	--	--	--	--	--	--	--	--
JUL										
23...	--	--	--	--	--	--	--	--	--	--
AUG										
19...	--	--	--	--	--	--	--	20	14	--
SEP										
16...	--	--	--	--	--	--	--	--	--	--

07207000 CIMARRON RIVER NEAR CIMARRON, NM -- continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
MAY										
29...	1325	5	4	10	7	<1	10	10	4	1

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
MAY									
29...	10	0	0	.1	.0	0	0	10	6

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
12...	1150	5.7	6.0	206	3.2	31
MAY						
29...	1325	21	16.0	18	1.0	--

07207500 PONIL CREEK NEAR CIMARRON, NM

LOCATION.--Lat 36°34'25", long 104°56'46", Colfax County, Hydrologic Unit 11080002, 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 mi^2 (443 km^2).

WATER-DISCHARGE RECORDS

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.
REVISED RECORDS.--WSP 1281: Drainage area. WSP 1731: 1920.
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.
REMARKS.--Water-discharge records good except those for winter period, which are poor. Diversions for irrigation of about 250 acres (1.0 km^2) above station. Diversions 1,000 ft (300 m) below station for irrigation of about 300 acres (1.2 km^2). Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--42 years (water years 1916-25, 1928, 1951-81), 11.2 ft^3/s (0.317 m^3/s), 8,110 acre-ft/yr (10.0 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,630 ft^3/s (159 m^3/s) June 17, 1965, gage height, 11.13 ft (3.392 m), from rating curve extended above 230 ft^3/s (6.5 m^3/s) on basis of slope-area measurements at gage heights 3.56 ft (1.085 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.
EXTREMES OUTSIDE PERIOD OF RECORD.--Discharge for flood of Aug. 8, 1929, which destroyed gage, was estimated as 5,200 ft^3/s (150 m^3/s) by State Engineer.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft^3/s (5.7 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
July 17	1600	1100	31.2	5.55	1.692	Aug. 16	1630	*1280	36.2	5.90	1.798

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.97	1.4	1.1	.45	.94	2.3	2.5	3.1	.00	.08	10
2	.04	1.1	1.3	1.1	.40	.97	2.3	2.8	3.5	.37	.89	8.3
3	.06	1.2	1.4	1.0	.45	1.3	2.5	2.9	11	4.4	9.2	8.9
4	.06	1.3	1.4	1.2	.50	1.2	2.5	2.6	4.6	8.6	5.1	8.9
5	.05	1.3	1.4	1.4	.57	.97	2.2	2.7	3.3	1.2	1.6	12
6	.06	1.3	1.4	1.1	.60	1.1	2.2	3.3	2.6	.23	1.6	8.8
7	.06	1.3	1.5	1.1	.61	1.4	2.4	2.8	1.9	.04	3.8	42
8	.06	1.3	1.5	1.2	.55	1.3	2.7	2.3	1.1	.02	8.5	33
9	.08	1.3	1.1	1.1	.50	1.2	3.0	2.2	.47	.02	5.3	28
10	.08	1.4	1.0	1.1	.40	1.4	3.4	2.1	.25	.00	6.1	32
11	.12	1.5	1.4	1.2	.30	1.9	4.2	1.9	.10	.00	11	26
12	.13	1.5	1.6	1.2	.35	1.8	4.4	1.6	.04	.00	41	24
13	.10	1.5	1.5	1.1	.35	1.6	4.2	1.4	.02	.00	23	19
14	.14	1.8	1.4	.97	.35	2.0	4.9	1.6	.00	.00	14	17
15	.17	2.0	1.3	1.0	.35	1.7	4.9	1.6	.00	.00	13	16
16	.24	1.7	1.4	.90	.35	1.7	4.4	1.5	.00	.25	94	15
17	.28	1.1	1.5	.80	.38	1.8	4.4	1.5	.00	49	25	15
18	.29	.91	1.6	.70	.37	1.9	4.5	1.7	.00	5.2	16	13
19	.30	1.0	1.5	.80	.34	1.7	4.5	1.8	.00	2.3	14	11
20	.48	1.0	1.1	.70	.43	1.8	4.3	1.6	.00	.48	12	10
21	.56	.91	1.2	.80	.42	1.8	4.2	1.5	.00	.04	20	9.2
22	.62	1.0	1.2	.75	.36	1.8	4.3	1.2	.00	.00	12	8.5
23	.65	1.2	1.1	.70	.43	1.8	4.4	1.0	.00	.00	10	8.3
24	.72	1.3	1.0	.80	.46	1.9	3.8	1.1	.00	.00	8.9	8.3
25	.63	1.2	1.1	.90	.46	2.0	3.5	1.1	.00	.00	7.8	7.5
26	.75	1.2	1.2	.70	.50	2.1	3.2	.88	.00	1.8	6.7	6.7
27	.86	1.4	1.3	.60	.64	2.3	3.1	.65	.00	.85	7.0	6.4
28	.94	1.5	1.4	.70	.72	2.4	3.0	.71	.00	.24	26	6.2
29	.86	1.6	1.3	.56	---	2.6	3.0	1.0	.00	.12	17	5.9
30	.73	1.6	1.1	.50	---	2.4	2.7	2.1	.00	.46	12	5.7
31	.83	---	1.2	.52	---	2.3	---	2.5	---	.16	9.6	---
TOTAL	10.99	39.39	40.8	28.30	12.59	53.08	105.4	56.14	31.98	75.78	442.17	430.6
MEAN	.35	1.31	1.32	.91	.45	1.71	3.51	1.81	1.07	2.44	14.3	14.4
MAX	.94	2.0	1.6	1.4	.72	2.6	4.9	3.3	11	49	94	42
MIN	.04	.91	1.0	.50	.30	.94	2.2	.65	.00	.00	.08	5.7
AC-FT	22	78	81	56	25	105	209	111	63	150	877	854

CAL YR 1980 TOTAL 5184.65 MEAN 14.2 MAX 188 MIN .04 AC-FT 10280
WTR YR 1981 TOTAL 1327.22 MEAN 3.64 MAX 94 MIN .00 AC-FT 2630

07207500 PONIL CREEK NEAR CIMARRON, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD--November 1980 to September 1981.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
NOV											
12...	1615	1.5	298	8.2	--	6.0	120	0	--	33	8.9
FEB											
04...	0945	.30	314	8.2	--	.5	120	15	--	35	9.1
MAR											
02...	1545	1.2	267	8.4	--	3.5	--	--	--	--	--
APR											
02...	0812	2.2	261	8.2	--	--	--	--	--	--	--
29...	0915	3.1	261	8.0	--	14.0	--	--	--	--	--
MAY											
28...	1115	.54	300	8.2	25.0	18.5	120	--	5.0	33	8.0
AUG											
19...	1215	15	260	8.5	18.0	18.0	100	--	4.0	29	7.7
SEP											
16...	1345	15	260	8.4	12.0	13.0	--	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
NOV											
12...	17	.7	1.3	120	30	4.1	.3	9.9	177	30	<10
FEB											
04...	19	.7	.8	110	37	5.0	.3	9.8	182	10	20
MAR											
02...	--	--	--	--	--	--	--	--	--	--	--
APR											
02...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
MAY											
28...	16	.6	1.5	110	36	5.2	.3	8.9	175	10	30
AUG											
19...	12	.5	1.4	100	14	7.8	.3	11	143	10	70
SEP											
16...	--	--	--	--	--	--	--	--	--	--	--

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
DEC						
10...	0955	.76	1.0	24	.05	--
JAN						
08...	1225	1.5	.5	5	.02	--
FEB						
04...	0945	.30	.5	2	.00	--
MAR						
02...	1545	1.2	3.5	24	.08	--
APR						
02...	0812	2.2	--	2	.01	--
29...	0915	3.1	14.0	1	.01	--
MAY						
28...	1115	.54	18.5	5	.01	--
AUG						
19...	1215	15	18.0	153	6.2	93
SEP						
16...	1345	15	13.0	36	1.5	--

07208500 RAYADO CREEK AT SAUBLE RANCH, NEAR CIMARRON, NM

LOCATION.--Lat 36°22'20", long 104°58'10", Colfax County, Hydrologic Unit 11080002, 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 mi^2 (168 km^2).

WATER-DISCHARGE RECORDS

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.
REVISED RECORDS.--WSP 1281: 1914, 1934-35(M), 1937(M), 1941(P), 1942(M), 1944(M), drainage area. See also PERIOD OF RECORD.
GAGE.--Water-stage recorder. Concrete control since Oct. 13, 1976. 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.
REMARKS.--Water-discharge records good except those for winter period, which are poor. No diversion above station. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--62 years (water years 1912, 1914, 1916-20, 1924, 1928-81), 13.8 ft^3/s (0.391 m^3/s), 10,000 acre-ft/yr (12.3 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD (1909-12, and SINCE 1913).--Maximum discharge, 9,000 ft^3/s (250 m^3/s) June 17, 1965, gage height, 11.5 ft (3.51 m), from floodmarks, from rating curve extended above 70 ft^3/s (2.0 m^3/s) on basis of field estimate of peak flow; minimum, 0.03 ft^3/s (0.001 m^3/s) Dec. 3, 1950, but may have been less during periods of ice effect.
EXTREMES OUTSIDE PERIOD OF RECORD.--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.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 74 ft^3/s (2.1 m^3/s) July 26, gage height, 3.20 ft (0.975 m), no peak above of 100 ft^3/s (2.8 m^3/s); minimum, 0.55 ft^3/s (0.016 m^3/s) Jan. 25, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	4.6	3.9	2.9	1.8	3.9	4.8	4.6	7.0	3.5	8.6	9.4
2	3.2	4.6	3.6	4.5	1.9	3.6	5.3	6.4	6.4	3.3	4.8	6.7
3	3.3	4.4	4.2	4.2	2.0	4.0	5.4	4.8	9.4	4.1	3.9	6.1
4	3.2	4.5	4.3	3.6	2.2	3.4	4.4	4.4	9.4	2.7	4.4	7.3
5	3.2	4.3	4.2	4.4	2.5	3.3	3.9	5.0	6.7	2.1	4.6	15
6	3.3	4.3	4.1	1.7	2.6	3.6	4.4	6.3	5.7	1.7	7.2	12
7	3.3	4.1	4.3	2.4	2.6	3.2	5.4	4.6	4.7	1.6	7.2	25
8	3.2	4.1	4.2	3.7	2.5	3.3	5.6	3.9	4.0	1.7	7.4	24
9	3.1	4.0	3.2	2.6	2.3	3.3	6.2	3.7	3.5	3.6	7.0	22
10	3.1	3.9	3.0	2.3	2.0	3.4	6.8	3.7	3.3	2.2	6.6	24
11	3.2	3.9	4.4	2.3	1.7	3.2	7.0	3.4	3.3	1.8	14	20
12	3.2	3.9	4.3	2.4	2.0	4.5	6.8	3.1	2.8	5.4	26	17
13	3.1	3.8	4.2	2.1	2.3	4.0	7.0	3.0	2.4	5.3	17	15
14	3.3	4.4	4.0	2.0	2.6	4.0	8.0	3.0	2.3	3.7	12	13
15	3.4	4.2	3.9	2.1	2.5	4.0	6.8	3.0	2.2	3.8	15	13
16	4.1	3.3	4.1	2.6	2.7	4.2	7.0	3.3	2.2	3.1	14	14
17	4.4	2.4	4.0	2.7	2.9	4.4	7.0	4.2	2.0	3.1	20	13
18	4.2	2.4	4.2	2.8	2.9	3.7	7.0	4.1	1.7	3.5	24	11
19	4.1	3.1	3.7	3.0	3.0	3.6	6.8	3.8	1.6	2.8	23	9.9
20	4.2	3.4	2.0	2.6	3.1	3.9	6.8	3.5	1.4	2.2	18	9.1
21	4.3	3.2	4.1	3.3	3.1	3.8	5.9	3.2	1.3	1.8	17	8.1
22	4.2	3.3	4.1	3.0	2.9	3.7	5.9	2.8	1.2	1.6	14	7.4
23	4.2	3.8	3.9	2.4	3.2	3.8	6.2	2.6	1.6	1.6	12	7.0
24	3.8	3.9	2.7	2.5	3.2	4.1	5.6	2.8	1.4	1.7	10	6.9
25	4.2	3.7	4.1	2.1	3.5	4.1	5.4	2.7	1.5	1.8	8.8	6.3
26	4.3	3.9	4.2	1.7	3.7	4.7	5.1	2.4	1.3	11	7.9	5.8
27	4.5	3.9	4.2	1.7	3.7	5.8	4.8	2.2	1.1	10	7.8	5.5
28	4.2	4.1	4.3	2.0	3.6	6.4	4.8	2.2	1.2	4.8	10	5.1
29	4.2	4.0	4.2	2.1	---	4.6	4.8	2.6	1.7	3.6	8.8	4.8
30	4.9	4.0	3.4	2.0	---	4.9	4.4	6.4	2.7	3.1	6.7	4.7
31	5.0	---	3.6	2.0	---	5.1	---	5.7	---	5.1	6.0	---
TOTAL	117.1	115.4	120.6	81.7	75.0	125.5	175.3	117.4	97.0	107.3	353.7	348.1
MEAN	3.78	3.85	3.89	2.64	2.68	4.05	5.84	3.79	3.23	3.46	11.4	11.6
MAX	5.0	4.6	4.4	4.5	3.7	6.4	8.0	6.4	9.4	11	26	25
MIN	3.1	2.4	2.0	1.7	1.7	3.2	3.9	2.2	1.1	1.6	3.9	4.7
AC-FT	232	229	239	162	149	249	348	233	192	213	702	690

CAL YR 1980	TOTAL	7429.5	MEAN 20.3	MAX 248	MIN 2.0	AC-FT	14740
WTR YR 1981	TOTAL	1834.1	MEAN 5.02	MAX 26	MIN 1.1	AC-FT	3640

07208500 RAYADO CREEK AT SAUBLE RANCH, NEAR CIMARRON, NM--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1980 to September 1981.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
NOV											
12...	1350	3.9	161	8.3	--	6.0	70	0	--	19	5.4
FEB											
04...	1155	6.3	177	8.2	--	1.0	80	4	--	22	6.2
MAR											
04...	1200	2.8	176	8.2	--	2.0	--	--	--	--	--
APR											
02...	1030	5.1	147	8.1	--	--	--	--	--	--	--
29...	1050	4.9	148	8.2	--	17.0	62	--	.00	17	4.7
MAY											
29...	1100	2.6	160	8.4	19.0	14.5	78	--	.00	22	5.5
JUN											
26...	0950	1.5	200	8.4	28.0	19.5	--	--	--	--	--
JUL											
23...	1410	1.3	210	8.2	25.5	21.0	--	--	--	--	--
AUG											
19...	1430	22	130	8.2	27.0	20.0	56	--	5.0	15	4.5
SEP											
16...	1545	13	140	8.0	14.0	12.0	--	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
NOV											
12...	5.6	.3	1.3	82	11	1.4	.3	19	112	50	30
FEB											
04...	6.8	.3	1.2	--	14	1.6	.3	21	119	10	20
MAR											
04...	--	--	--	--	--	--	--	--	--	--	--
APR											
02...	--	--	--	--	--	--	--	--	--	--	--
29...	5.4	.3	1.3	66	4.1	1.1	.2	18	92	5	10
MAY											
29...	6.0	.3	1.7	85	4.7	.7	.3	19	111	0	20
JUN											
26...	--	--	--	--	--	--	--	--	--	--	--
JUL											
23...	--	--	--	--	--	--	--	--	--	--	--
AUG											
19...	4.8	.3	1.5	51	2.0	14	.2	20	93	10	120
SEP											
16...	--	--	--	--	--	--	--	--	--	--	--

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
DEC						
10...	1240	3.7	1.0	3	.03	--
JAN						
06...	1535	1.9	6.0	0	.00	--
FEB						
04...	1155	6.3	1.0	3	.05	--
MAR						
04...	1200	2.8	2.0	0	.00	--
APR						
02...	1030	5.1	--	2	.03	--
29...	1050	4.9	17.0	2	.03	--
MAY						
29...	1100	2.6	14.5	4	.03	--
JUN						
26...	0950	1.5	19.5	4	.02	--
AUG						
19...	1430	22	20.0	30	1.8	91
SEP						
16...	1545	13	12.0	10	.35	--

07211000 CIMARRON RIVER AT SPRINGER, NM

LOCATION.--Lat 36°21'37", long 104°35'53", Colfax County, Hydrologic Unit 11080002, 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).
DRAINAGE AREA.--1,032 mi^2 (2,673 km^2).
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.
REVISED RECORDS.--WSP 827: 1934-36(M). WSP 1281: 1942, 1945-46(M).
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.
REMARKS.--Records good. Flow partly regulated by Eagle Nest Lake (station 07205500). Diversions for irrigation of about 23,000 acres (93 km^2) above station and a few hundred acres between station and mouth. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--57 years (water years 1921, 1925, 1927-81), 17.1 ft^3/s (0.484 m^3/s), 12,390 acre-ft/yr (15.3 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD (SINCE 1930).--Maximum discharge, 29,500 ft^3/s (835 m^3/s) June 18, 1965, gage height, 19.96 ft (6.084 m), from floodmarks, from rating curve extended above 1,800 ft^3/s (51 m^3/s) on basis of contracted-opening measurement of peak flow; no flow at times in 1954, 1956-57, 1978.
EXTREMES OUTSIDE PERIOD OF RECORD.--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 extended 10,000 ft^3/s (280 m^3/s), but probably were less than the 1965 flood.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 280 ft^3/s (7.9 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
July 26	2345	700	19.8	5.22	1.591	Aug. 12	0545	*804	22.8	5.36	1.634

Minimum, 0.04 ft^3/s (0.001 m^3/s) July 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	2.4	3.4	3.1	3.3	7.3	1.6	3.4	5.9	5.7	1.0	2.7
2	2.8	2.5	3.0	3.1	3.3	5.8	1.9	2.9	4.6	4.4	4.8	2.1
3	2.9	2.5	3.1	3.1	3.3	5.1	1.9	3.3	5.4	2.5	1.8	2.5
4	2.4	2.7	3.0	3.1	3.3	4.4	1.9	5.3	6.1	1.5	.67	2.6
5	2.9	2.5	2.9	3.2	3.4	4.1	2.1	6.4	6.1	.90	.81	3.0
6	3.5	2.3	2.9	3.2	3.5	3.7	2.3	5.4	5.0	.61	1.1	7.1
7	3.5	2.3	3.0	3.1	3.6	3.6	2.6	4.2	4.5	1.0	.95	51
8	2.7	2.3	3.5	3.1	3.5	3.6	2.2	2.9	3.3	1.0	12	22
9	2.0	2.1	3.4	3.0	3.7	3.4	2.6	2.2	2.9	.56	39	17
10	2.4	2.3	3.2	2.9	2.9	3.1	3.7	2.1	3.1	.29	33	14
11	2.0	2.4	3.1	2.9	2.9	5.0	3.8	2.2	2.8	.22	63	15
12	1.9	2.4	3.2	2.8	4.0	7.0	3.8	2.1	1.5	.23	413	15
13	1.9	2.7	3.2	2.8	3.5	6.1	4.7	2.1	1.1	.30	78	13
14	2.1	3.3	3.3	2.8	3.4	8.2	4.6	2.1	.82	.82	24	14
15	2.0	3.7	3.3	2.8	3.5	8.2	5.0	2.0	.75	.86	19	14
16	1.6	3.8	3.3	2.6	3.5	6.4	4.3	2.6	.88	1.2	8.5	13
17	1.4	3.3	3.3	3.1	3.5	4.8	3.8	2.9	.63	.66	26	14
18	1.5	3.2	3.3	3.6	3.4	4.0	3.3	2.3	3.4	1.7	13	14
19	1.5	3.2	2.8	3.6	3.5	3.9	3.4	2.0	2.1	.40	6.2	13
20	1.8	3.0	2.6	3.4	3.3	3.5	3.6	2.3	1.3	.62	4.9	11
21	1.9	2.9	3.3	3.4	3.4	2.9	4.8	6.4	.92	.17	4.5	10
22	2.1	2.9	3.3	3.4	3.5	2.6	4.6	4.6	.68	.08	3.7	9.3
23	2.3	3.2	3.4	3.6	3.3	2.5	5.5	3.6	.86	.06	7.7	8.0
24	2.3	3.3	3.2	3.9	3.4	2.3	4.5	3.2	3.5	.08	7.2	8.0
25	2.3	3.6	3.4	3.7	3.2	2.2	3.8	2.6	2.4	.12	3.9	7.8
26	2.3	3.5	3.3	3.6	3.1	2.1	3.3	2.2	2.4	42	3.0	7.0
27	2.7	3.4	3.3	3.6	2.9	2.0	2.8	1.9	1.2	174	2.7	5.9
28	2.6	3.4	3.3	3.8	4.4	1.8	2.8	2.0	.79	16	2.8	5.9
29	2.6	3.6	3.3	3.8	---	1.8	3.6	3.3	.78	8.2	2.2	5.0
30	2.5	3.7	3.2	3.5	---	1.8	3.6	8.8	1.8	3.4	1.8	5.0
31	2.5	---	3.1	3.6	---	1.6	---	8.8	---	1.8	3.4	---
TOTAL	71.8	88.4	98.9	101.2	95.5	124.8	102.4	108.1	77.51	271.38	793.63	331.9
MEAN	2.32	2.95	3.19	3.26	3.41	4.03	3.41	3.49	2.58	8.75	25.6	11.1
MAX	3.5	3.8	3.5	3.9	4.4	8.2	5.5	8.8	6.1	174	413	51
MIN	1.4	2.1	2.6	2.6	2.9	1.6	1.6	1.9	.63	.06	.67	2.1
AC-FT	142	175	196	201	189	248	203	214	154	538	1570	658

CAL YR 1980	TOTAL	12621.42	MEAN	34.5	MAX	471	MIN	.92	AC-FT 25030
WTR YR 1981	TOTAL	2265.52	MEAN	6.21	MAX	413	MIN	.06	AC-FT 4490

07211500 CANADIAN RIVER NEAR TAYLOR SPRINGS, NM

LOCATION.--Lat 36°17'49", long 104°29'36", in NW¼SE¼ sec. 21, T.24 N., R.23 E., Colfax County, Hydrologic Unit 11080003, 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 847.9 (1,364.3 km).

DRAINAGE AREA.--2,850 mi^2 (7,380 km^2).

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.

REVISED RECORDS.--WSP 1177: Drainage area. WSP 1281: 1941-42(P), 1945-47(M), 1948-50(P).

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.

REMARKS.--Records poor. Diversions for irrigation of about 30,000 acres (120 km^2) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--36 years (water years 1940-58, 1965-81), 80.9 ft^3/s (2.291 m^3/s), 58,610 acre-ft/yr (72.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 162,000 ft^3/s (4,590 m^3/s) June 18, 1965, gage height, 47.4 ft (14.448 m), from floodmarks, from rating curve extended above 7,000 ft^3/s (200 m^3/s) on basis of slope-area measurement of peak flow; no flow at times some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood prior to 1965 occurred Sept. 29, 1904, discharge published as 91,100 ft^3/s (2,580 m^3/s) in WSP 842,847.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, about 3,500 ft^3/s (99 m^3/s) Aug. 12; minimum, 0.97 ft^3/s (0.027 m^3/s) July 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	5.2	6.1	5.7	5.0	16	4.0	4.4	37	23	5.0	100
2	3.5	4.9	5.5	6.2	5.5	12	3.8	3.9	22	47	50	50
3	3.5	4.9	5.7	5.8	6.0	9.0	3.5	6.8	18	121	100	40
4	3.5	4.9	5.4	5.8	6.5	8.0	3.4	24	19	181	200	30
5	3.5	4.9	5.2	5.9	7.0	7.6	3.4	25	16	63	100	100
6	4.0	4.9	5.2	6.0	7.0	7.2	3.6	12	13	20	200	137
7	4.5	4.4	5.2	6.1	6.0	7.2	3.5	15	11	9.7	150	200
8	5.2	4.4	5.4	6.5	6.0	6.5	3.3	15	9.1	7.9	400	250
9	5.0	4.2	5.8	6.5	6.5	6.5	3.0	7.4	6.1	6.7	500	300
10	4.9	4.3	5.7	6.0	6.5	5.8	3.4	5.5	4.2	3.8	1500	200
11	5.0	4.4	6.0	6.0	5.5	7.5	4.1	4.5	4.8	3.0	2500	150
12	4.9	4.5	6.0	6.0	6.0	12	3.8	3.8	3.7	5.8	3500	130
13	4.9	4.4	5.8	6.0	6.0	11	4.2	3.7	3.5	8.0	3000	110
14	4.6	5.0	5.6	7.0	5.5	17	4.6	3.4	3.3	7.3	1000	100
15	4.8	5.6	5.7	7.0	5.0	18	4.8	3.6	3.2	4.4	1000	90
16	4.8	5.9	5.8	7.0	5.0	15	5.6	3.4	3.0	5.8	700	80
17	4.3	5.5	5.9	7.5	5.0	12	5.3	3.5	2.9	15	525	70
18	4.4	6.0	5.8	7.9	5.0	8.9	5.1	3.9	2.8	8.2	540	60
19	4.4	6.5	5.6	8.0	5.0	7.8	5.0	3.8	2.7	14	201	50
20	4.5	7.1	7.0	7.0	5.5	8.0	4.7	3.5	2.7	44	100	40
21	4.7	6.3	8.0	7.0	5.0	6.7	5.2	14	2.6	12	150	35
22	4.7	6.4	8.0	7.0	4.5	5.6	5.8	8.2	2.6	5.5	200	28
23	4.7	6.1	7.5	8.0	4.5	6.4	6.9	4.7	2.6	19	150	26
24	4.8	5.8	8.0	8.2	4.5	6.1	7.0	4.0	2.6	8.0	100	24
25	5.1	9.0	7.0	6.4	4.5	6.1	5.8	4.3	10	6.7	50	22
26	4.9	8.0	6.5	6.5	4.5	5.5	4.7	3.4	6.4	6.0	40	20
27	4.9	10	5.8	7.0	4.5	4.7	4.1	3.2	3.0	100	30	18
28	5.1	8.7	5.8	7.0	5.0	4.5	3.9	2.6	2.2	200	50	16
29	5.2	7.0	5.8	6.5	---	4.3	4.1	195	1.6	100	150	14
30	5.2	6.8	5.8	5.5	---	4.4	4.4	300	1.9	20	100	12
31	5.2	---	5.5	5.5	---	4.0	---	69	---	10	150	---
TOTAL	142.2	176.0	188.1	204.5	152.5	261.3	134.0	764.5	223.5	1085.8	17441.0	2502
MEAN	4.59	5.87	6.07	6.60	5.45	8.43	4.47	24.7	7.45	35.0	563	83.4
MAX	5.2	10	8.0	8.2	7.0	18	7.0	300	37	200	3500	300
MIN	3.5	4.2	5.2	5.5	4.5	4.0	3.0	2.6	1.6	3.0	5.0	12
AC-FT	282	349	373	406	302	518	266	1520	443	2150	34590	4960

CAL YR 1980 TOTAL 18516.5 MEAN 50.6 MAX 1150 MIN 2.0 AC-FT 36730
WTR YR 1981 TOTAL 23275.4 MEAN 63.8 MAX 3500 MIN 1.6 AC-FT 46170

NOTE.--No gage-height record July 25 to Sept. 30.

07215500 MORA RIVER AT LA CUEVA, NM

LOCATION.--Lat 35°56'27", long 105°14'59", Mora County, Hydrologic Unit 11080004, 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).

DRAINAGE AREA.--173 mi^2 (448 km^2).

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.

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

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.

REMARKS.--Records good except those for winter period which are poor. Diversions above station for irrigation of about 7,000 acres (28 km^2), part of which is below station. See tabulation below for monthly and yearly diversion of La Cueva Canal, which bypasses gage on left bank. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--54 years (water years 1907-10, 1932-81), 27.0 ft^3/s (0.765 m^3/s), 19,560 acre-ft/yr (24.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1930).--Maximum discharge, 1,530 ft^3/s (43.3 m^3/s) Sept. 23, 1941, gage height, 7.58 ft (2.310 m), site and datum then in use, from rating curve extended above 400 ft^3/s (11 m^3/s); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 29, 1904, may have exceeded 20,000 ft^3/s (570 m^3/s); another major flood occurred June 11, 1913, but is believed less than that of 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 424 ft^3/s (12.0 m^3/s) at 2230 hours Aug. 8, gage height, 4.61 ft (1.405 m) from rating curve extended above 69 ft^3/s (1.95 m^3/s), no other peak above base of 300 ft^3/s (8.5 m^3/s); minimum, 0.58 ft^3/s (0.016 m^3/s) Nov. 25, Feb. 6, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	3.5	2.2	1.9	1.2	2.6	4.9	2.5	4.0	10	7.9	40
2	8.5	3.5	2.0	1.9	1.2	2.1	4.7	3.7	4.5	9.8	8.0	31
3	9.6	3.2	1.9	2.0	1.5	4.4	4.8	3.3	4.4	7.1	7.6	34
4	12	3.0	1.8	2.0	1.4	2.3	4.6	3.3	4.9	6.0	7.1	40
5	16	2.9	1.8	2.1	1.1	2.1	4.3	3.6	4.5	5.6	6.7	88
6	14	2.8	1.7	2.1	1.1	1.9	4.4	3.8	4.5	5.6	7.0	62
7	16	2.6	1.8	1.9	1.1	2.2	4.3	4.1	4.1	6.1	7.0	67
8	16	2.1	1.8	2.1	.95	2.2	4.2	3.9	4.0	6.7	29	73
9	17	1.4	1.9	1.9	1.8	2.6	4.2	3.1	2.9	7.2	9.6	68
10	16	1.4	1.4	1.9	1.8	2.9	4.3	3.2	3.3	7.1	8.3	59
11	15	2.3	1.7	1.8	1.4	3.8	4.1	2.8	3.9	11	27	52
12	15	3.1	1.5	1.9	1.5	4.5	4.3	2.6	4.0	6.9	152	58
13	16	2.9	1.6	1.8	1.8	5.0	5.0	2.6	3.6	7.1	76	49
14	15	3.0	1.5	1.8	1.8	4.7	5.3	3.2	4.0	6.8	50	33
15	9.8	3.1	1.3	1.6	2.3	5.0	4.8	3.2	3.9	6.5	43	27
16	4.6	3.2	1.3	1.6	2.5	9.9	5.2	3.3	4.1	6.6	42	30
17	7.1	3.2	1.3	1.6	2.2	10	5.5	3.6	4.4	7.1	43	20
18	11	3.0	1.2	1.8	2.2	9.2	5.5	3.4	4.2	7.1	62	17
19	12	3.2	1.1	1.8	2.1	8.7	5.4	3.5	4.6	6.6	50	14
20	9.1	3.1	1.2	1.5	2.1	8.4	5.6	4.4	4.7	6.2	72	11
21	4.3	1.5	1.3	1.5	2.3	7.5	5.4	4.7	4.3	6.0	71	16
22	5.2	1.5	1.3	1.5	2.2	7.1	5.7	4.7	4.3	5.5	56	16
23	4.8	1.6	1.5	1.6	1.9	6.9	6.0	4.6	4.4	5.7	42	8.7
24	5.5	1.6	1.5	1.8	2.0	6.8	5.8	4.6	4.5	5.9	40	14
25	4.9	1.6	1.8	1.7	2.0	6.7	5.7	4.5	4.6	5.8	37	17
26	3.7	1.6	2.2	1.2	1.9	7.2	5.3	3.9	4.8	6.2	34	18
27	4.4	1.9	2.2	1.5	2.1	6.6	4.0	3.9	5.1	6.2	37	19
28	5.3	2.7	2.2	1.6	2.2	6.0	2.0	3.7	5.3	6.6	85	18
29	5.6	2.8	2.2	1.6	---	5.0	2.1	3.4	5.1	6.5	49	13
30	4.5	2.4	2.2	1.4	---	4.7	2.0	3.8	7.9	6.8	39	7.2
31	3.0	---	2.1	1.2	---	4.6	---	4.0	---	7.4	35	---
TOTAL	301.9	75.7	52.5	53.6	49.65	163.6	139.4	112.9	132.8	211.7	1240.2	1019.9
MEAN	9.74	2.52	1.69	1.73	1.77	5.28	4.65	3.64	4.43	6.83	40.0	34.0
MAX	17	3.5	2.2	2.1	2.5	10	6.0	4.7	7.9	11	152	88
MIN	3.0	1.4	1.1	1.2	.95	1.9	2.0	2.5	2.9	5.5	6.7	7.2
AC-FT	599	150	104	106	98	325	276	224	263	420	2460	2020
(†)	755	747	613	590	412	417	61	129	120	305	273	581

CAL YR 1980 TOTAL 12434.80 MEAN 34.0 MAX 291 MIN .86 AC-FT 24660 † 4960
WTR YR 1981 TOTAL 3553.85 MEAN 9.74 MAX 152 MIN .95 AC-FT 7050 † 5000

† Diversion, in acre-feet, by La Cueva Canal.

07215500 MORA RIVER AT LA CUEVA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1981 to September 1981.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
FEB											
23...	1545	2.1	468	8.3	--	12.0	220	46	65	13	14
MAR											
25...	1200	6.6	484	8.5	--	10.5	--	--	--	--	--
APR											
21...	1200	5.9	482	8.2	--	18.0	--	--	--	--	--
MAY											
19...	1115	3.2	508	8.2	12.0	11.0	250	72	76	15	14
JUN											
18...	1045	4.0	450	8.4	27.0	18.0	--	--	--	--	--
JUL											
14...	1115	6.7	520	8.4	31.5	21.0	--	--	--	--	--
AUG											
11...	1400	9.3	490	8.1	22.0	19.0	240	47	72	14	12
SEP											
09...	1100	68	460	8.2	18.0	13.0	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
FEB										
23...	.4	1.2	170	65	5.6	.7	10	277	20	<10
MAR										
25...	--	--	--	--	--	--	--	--	--	--
APR										
21...	--	--	--	--	--	--	--	--	--	--
MAY										
19...	.4	1.3	180	72	5.1	.5	9.9	302	50	20
JUN										
18...	--	--	--	--	--	--	--	--	--	--
JUL										
14...	--	--	--	--	--	--	--	--	--	--
AUG										
11...	.4	1.7	190	65	4.5	.5	11	295	30	13
SEP										
09...	--	--	--	--	--	--	--	--	--	--

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
FEB						
23...	1545	2.1	12.0	21	.12	--
MAR						
25...	1200	6.6	10.5	25	.45	--
APR						
21...	1200	5.9	18.0	38	.61	--
MAY						
19...	1115	3.2	11.0	19	.16	--
JUN						
18...	1045	4.0	18.0	97	1.0	--
JUL						
14...	1115	6.7	21.0	43	.78	--
AUG						
11...	1400	9.3	19.0	138	3.5	93
SEP						
09...	1100	68	13.0	77	14	92

07216500 MORA RIVER NEAR GOLONDRINAS, NM

LOCATION.--Lat 35°53'27", long 105°09'47", Mora County, Hydrologic Unit 11080004, 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) upstreamfrom Coyote Creek, 4.7 mi (7.6 km) downstream from Rito Cebolla, and at mile 75.8 (122.0 km).

DRAINAGE AREA.--267 mi^2 (692 km^2).

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.

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

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.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 12,000 acres (49 km^2) above station. Off-channel lakes make it possible to divert and store water during non-irrigation season. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--64 years (water years 1916-20, 1922, 1924-81), 33.1 ft^3/s (0.937 m^3/s), 23,980 acre-ft/yr (29.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,000 ft^3/s (396 m^3/s) Aug. 22, 1952, gage height, 14.4 ft (4.39 m), site and datum then in use, from rating curve extended above 660 ft^3/s (19 m^3/s) on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Sept. 29, 1904, and June 11, 1913, probably exceeded 25,000 ft^3/s (710 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft^3/s (11 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Aug. 9	0130	628	17.8	3.30	1.006	Aug. 21	a0100	*700	19.8	-	-
Aug. 12	0200	560	15.9	3.09	.942						

a About

Minimum discharge, 0.44 ft^3/s (0.012 m^3/s) June 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	3.7	5.5	3.8	2.7	3.7	8.0	2.7	1.9	5.5	5.4	50
2	7.5	3.9	4.3	4.3	3.6	3.9	7.8	2.9	1.7	30	7.8	42
3	7.9	3.7	4.2	4.9	4.0	5.4	6.9	2.9	1.5	34	6.3	38
4	8.0	3.6	4.1	5.2	4.9	4.9	6.6	3.0	1.4	18	4.9	58
5	9.7	3.4	4.0	5.0	3.4	3.6	7.2	3.2	1.4	5.6	5.2	106
6	9.9	3.3	3.9	4.9	3.0	3.4	6.8	3.5	1.5	3.4	4.7	84
7	9.1	3.4	4.0	4.6	2.7	3.4	6.9	3.3	1.4	2.8	4.9	83
8	11	2.8	4.2	5.2	2.8	3.1	5.2	2.9	1.1	2.6	4.8	100
9	12	3.0	3.8	4.3	3.8	2.6	2.7	2.7	1.1	2.2	125	95
10	12	2.9	3.8	4.6	3.6	2.5	3.1	2.2	.98	2.4	24	79
11	10	2.7	3.6	3.8	3.4	4.4	2.9	2.3	.97	3.0	65	65
12	12	2.6	4.9	4.6	4.3	4.4	2.2	2.1	.88	6.8	361	71
13	13	2.8	3.6	4.0	4.6	4.9	2.5	2.3	.79	4.7	129	65
14	14	3.4	3.6	3.4	4.3	6.0	3.0	2.2	.77	4.2	71	49
15	12	3.1	3.6	3.8	5.0	5.2	3.5	2.2	.83	3.9	64	33
16	5.1	3.1	3.5	3.4	4.7	7.7	3.2	2.2	.81	3.7	63	36
17	4.6	2.5	3.5	4.4	4.4	13	3.5	2.0	.78	6.0	54	27
18	7.3	3.0	3.5	4.6	3.8	9.7	3.9	2.0	.73	4.5	82	24
19	7.4	3.2	3.4	4.0	3.5	9.0	3.2	2.0	.74	4.3	72	20
20	8.8	3.4	3.4	4.0	3.4	8.6	2.9	2.0	.66	4.0	78	17
21	5.7	3.4	3.7	3.8	3.1	8.5	2.9	2.2	.59	3.5	176	19
22	5.2	3.8	3.6	4.0	2.7	6.2	2.9	2.1	.56	3.3	70	24
23	5.2	3.0	4.3	4.0	3.1	5.4	3.0	2.0	.58	3.5	55	10
24	5.6	3.0	3.8	4.7	2.7	4.7	2.4	2.1	.67	3.5	51	13
25	6.1	3.2	3.6	4.0	2.8	4.5	2.6	1.9	.63	3.7	50	18
26	5.6	3.0	4.1	3.6	2.4	4.6	2.7	1.7	.60	5.2	46	19
27	5.2	4.6	4.0	4.0	2.7	4.8	2.8	1.6	.53	4.6	44	20
28	5.9	5.5	3.9	3.8	2.7	4.7	2.8	1.5	.58	4.0	115	20
29	9.0	6.4	3.8	3.9	---	4.4	2.7	1.6	.66	3.7	69	19
30	8.4	6.5	3.8	3.0	---	3.7	2.8	2.2	9.4	3.5	53	8.3
31	5.8	---	3.8	2.7	---	7.5	---	1.9	---	3.7	43	---
TOTAL	258.1	105.9	120.8	128.3	98.1	168.4	119.6	71.4	36.74	193.8	2004.0	1312.3
MEAN	8.33	3.53	3.90	4.14	3.50	5.43	3.99	2.30	1.22	6.25	64.6	43.7
MAX	14	6.5	5.5	5.2	5.0	13	8.0	3.5	9.4	34	361	106
MIN	4.6	2.5	3.4	2.7	2.4	2.5	2.2	1.5	.53	2.2	4.7	8.3
AC-FT	512	210	240	254	195	334	237	142	73	384	3970	2600

CAL YR 1980	TOTAL	11792.30	MEAN	32.2	MAX	362	MIN	1.9	AC-FT 23390
WTR YR 1981	TOTAL	4617.44	MEAN	12.7	MAX	361	MIN	.53	AC-FT 9160

NOTE.--No gage-height record Aug. 21.

07216500 MORA RIVER NEAR GOLONDRINAS, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1980 to January 1981.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)
NOV					
12...	1100	2.8	784	7.8	4.5

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
12...	1100	2.8	4.5	14	.11	69
JAN						
08...	1500	3.9	3.0	33	.35	--
30...	1405	3.6	2.0	21	.20	--

07218000 COYOTE CREEK NEAR GOLONDRINAS, NM

LOCATION.--Lat 35°55'00", long 105°09'49", Mora County, Hydrologic Unit 11080004, 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 mi^2 (557 km^2).
PERIOD OF RECORD.--April 1928 to September 1930 (monthly discharge only, published in WSP 1311), October 1930 to current year.
REVISED RECORDS.--WSP 1281: 1939-40(M), 1941-42, 1945-47. WSP 1511: Drainage area.
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.
REMARKS.--Records fair except those for winter period, which are poor. Diversions (including off-channel storage) for irrigation of about 4,000 acres (16 km^2) above station. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--53 years, 11.3 ft^3/s (0.320 m^3/s), 8,190 acre-ft/yr (10.1 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,050 ft^3/s (115 m^3/s) Aug. 17, 1961, gage height, 9.60 ft (2.926 m), from rating curve extended above 250 ft^3/s (7.1 m^3/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, Feb. 20, 1978.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 180 ft^3/s (5.1 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Aug. 9	0100	a*554	15.7	4.76	1.451	Aug. 21	2300	542	15.3	4.78	1.457
Aug. 11	2000	364	10.3	4.28	1.305	Sept. 5	1030	472	13.4	4.59	1.399
Aug. 20	1930	254	7.19	3.89	1.186						

a From rating curve extended above 210 ft^3/s (5.9 m^3/s) as explained above.

Minimum discharge, 0.29 ft^3/s (0.008 m^3/s) part or all of each day June 10-17, 22-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.5	7.4	5.7	5.5	4.0	1.9	1.0	.68	.87	1.9	17
2	1.8	3.0	6.9	6.6	4.7	3.4	1.8	1.7	.59	2.6	1.8	16
3	1.7	3.0	7.7	7.0	4.7	4.0	1.7	1.4	.51	3.8	2.4	13
4	1.7	3.0	7.5	6.3	5.5	3.3	1.7	1.2	.51	2.1	1.7	19
5	1.7	3.6	7.3	6.2	4.3	3.5	1.9	1.4	.51	1.1	1.7	187
6	1.7	4.1	7.4	5.9	4.7	3.3	1.8	1.1	.43	.77	1.4	97
7	1.7	4.1	7.3	5.7	5.1	3.2	1.6	1.1	.43	.68	1.6	82
8	1.7	4.2	7.7	5.6	4.2	3.1	1.4	.97	.36	.68	2.1	77
9	1.6	4.1	6.4	5.5	5.5	3.2	1.4	.97	.36	.59	49	66
10	1.5	3.7	5.5	5.1	5.3	3.1	1.4	.97	.29	.68	5.0	55
11	1.7	3.8	5.7	4.0	5.7	3.6	1.3	.97	.36	.68	36	45
12	1.7	4.1	6.6	4.3	6.1	4.1	1.3	.81	.36	.68	74	48
13	1.7	4.3	7.2	4.5	5.1	4.0	1.3	.69	.29	.68	42	38
14	1.8	4.6	6.5	4.9	5.5	4.6	1.4	.68	.29	.77	26	34
15	1.7	4.9	6.4	5.1	4.9	4.4	1.4	.68	.36	.87	29	30
16	1.7	5.0	6.6	4.3	4.0	4.2	1.1	.68	.36	.87	38	30
17	1.8	4.5	6.4	6.1	3.8	4.0	1.1	.68	.36	1.1	31	30
18	1.8	4.3	6.3	6.1	3.7	4.1	1.1	.68	.36	.97	24	28
19	1.8	4.5	6.6	6.1	3.7	3.8	1.1	.68	.36	1.1	20	24
20	2.1	4.5	5.9	5.5	3.6	3.4	1.1	.68	.36	.97	36	20
21	2.2	4.5	6.6	5.3	3.8	3.1	1.1	.66	.36	.97	69	17
22	2.2	4.3	6.7	5.1	3.6	3.2	1.1	.59	.29	.97	127	14
23	2.2	4.8	7.1	5.1	3.2	3.7	1.3	.59	.36	1.1	46	13
24	2.2	5.3	6.3	5.5	3.4	3.6	1.1	.59	.29	1.2	29	12
25	2.3	4.8	6.5	5.5	3.0	3.4	1.1	.56	.43	1.4	22	12
26	2.3	4.7	6.8	4.7	3.1	3.3	1.1	.43	.51	1.9	19	11
27	2.5	4.9	7.0	4.5	3.1	3.2	1.0	.46	.43	1.8	22	10
28	2.4	5.4	7.0	5.3	3.5	3.1	.87	.43	.51	1.6	48	7.3
29	2.5	6.7	6.9	6.1	---	3.1	1.0	.43	.68	2.2	41	7.5
30	2.6	7.5	6.6	5.7	---	2.6	1.1	.55	1.7	2.6	21	8.0
31	2.4	---	6.1	4.9	---	1.8	---	.56	---	1.9	17	---
TOTAL	60.5	132.7	208.9	168.2	122.3	108.4	39.57	24.89	13.69	40.20	885.6	1067.8
MEAN	1.95	4.42	6.74	5.43	4.37	3.50	1.32	.80	.46	1.30	28.6	35.6
MAX	2.6	7.5	7.7	7.0	6.1	4.6	1.9	1.7	1.7	3.8	127	187
MIN	1.5	2.5	5.5	4.0	3.0	1.8	.87	.43	.29	.59	1.4	7.3
AC-FT	120	263	414	334	243	215	78	49	27	80	1760	2120

CAL YR 1980 TOTAL 5064.72 MEAN 13.8 MAX 295 MIN .85 AC-FT 10050
WTR YR 1981 TOTAL 2872.75 MEAN 7.87 MAX 187 MIN .29 AC-FT 5700

07221000 MORA RIVER NEAR SHOEMAKER, NM

LOCATION.--Lat 35°48'01", long 104°46'58", Mora County, Hydrologic Unit 11080004, 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 mi^2 (2,859 km^2), of which 71 mi^2 (184 km^2) 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.
REVISED RECORDS.--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). WRD NM-75-1: 1974. WRD NM-78-1: 1977.
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.
REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 26,000 acres (110 km^2) above station. Off-channel lakes make it possible to divert and store water during non-irrigation season. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--63 years (water years 1915-18, 1920-24, 1928-81), 55.6 ft^3/s (1.575 m^3/s), 40,280 acre-ft/yr (49.7 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft^3/s (430 m^3/s) June 3, 1948, gage height, 12.79 ft (3.898 m), from rating curve extended above 2,800 ft^3/s (79 m^3/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.
EXTREMES OUTSIDE PERIOD OF RECORDS.--Floods of Sept. 29, 1904, and June 11, 1913, probably exceeded 30,000 ft^3/s (850 m^3/s).
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,440 ft^3/s (69.1 m^3/s) at 2215 hours Aug. 11, gage height, 6.09 ft (1.856 m), no other peak above base of 800 ft^3/s (23 m^3/s); minimum, 0.64 ft^3/s (0.018 m^3/s) part of each day June 22-24, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	3.8	9.9	13	8.3	3.2	3.5	3.1	2.6	19	1.4	24
2	2.1	3.5	7.3	12	8.0	2.8	3.1	3.9	2.6	4.3	1.4	28
3	2.2	3.4	9.9	12	8.5	3.7	2.8	3.4	2.2	3.4	1.2	21
4	2.1	3.3	5.1	13	9.2	2.9	2.8	2.9	2.0	24	1.1	15
5	2.1	3.5	3.2	15	11	2.7	3.3	2.8	1.9	6.2	1.1	61
6	2.0	3.7	3.8	14	10	2.7	3.3	3.5	1.8	3.4	1.2	190
7	2.2	3.4	3.9	13	9.3	2.5	2.6	2.9	1.9	2.4	1.3	110
8	2.4	3.1	5.4	12	8.8	2.5	2.6	2.6	1.7	2.1	24	126
9	2.5	3.1	5.6	12	9.5	2.5	2.6	2.4	1.5	2.3	117	131
10	2.4	3.3	5.3	9.6	8.7	2.7	2.5	2.4	1.4	1.6	62	145
11	2.7	3.5	6.5	9.4	6.5	4.1	2.5	2.4	1.3	1.4	230	116
12	2.5	3.4	7.2	9.2	6.0	3.8	2.5	1.9	1.2	1.3	1090	105
13	2.7	3.1	9.5	8.8	5.3	3.5	2.6	2.1	1.1	1.2	307	101
14	2.8	3.6	11	9.3	3.5	3.9	2.9	2.5	1.0	1.1	105	86
15	3.1	3.6	11	9.3	3.4	3.3	3.1	2.7	1.0	1.3	61	67
16	2.7	3.5	12	10	3.2	2.9	2.9	2.3	1.1	16	61	59
17	2.7	3.2	12	12	3.0	2.5	2.7	2.2	1.0	7.2	66	57
18	2.8	3.5	12	16	3.2	2.2	3.8	2.5	.95	2.5	64	42
19	3.0	3.4	12	16	2.6	3.1	3.7	3.1	.90	2.2	64	35
20	3.2	3.3	14	14	2.9	3.6	3.4	3.2	.95	1.6	53	25
21	3.3	3.0	15	14	2.9	3.8	2.8	2.7	.90	1.5	103	17
22	3.2	2.7	15	15	2.8	3.4	3.1	2.2	.80	1.3	153	13
23	3.2	2.7	16	13	2.8	4.0	3.9	2.2	.70	1.1	101	14
24	3.1	2.7	16	15	2.5	3.8	3.0	2.4	.92	.97	67	10
25	3.0	3.6	16	14	2.5	2.9	2.9	2.4	.98	8.1	51	6.1
26	3.1	4.1	16	11	2.4	3.4	2.6	2.2	.91	21	36	5.8
27	3.3	6.2	17	13	2.3	3.6	2.6	2.0	.77	4.2	23	5.5
28	3.6	6.1	16	12	2.4	3.2	2.8	1.8	.77	2.6	47	5.3
29	3.6	8.8	16	10	---	4.5	2.9	2.1	1.8	2.0	81	6.3
30	3.6	9.7	15	9.2	---	3.9	3.0	3.4	50	1.7	46	10
31	3.7	---	14	8.8	---	3.1	---	3.1	---	1.5	30	---
TOTAL	87.1	117.8	338.6	374.6	151.5	100.7	88.8	81.3	88.65	150.47	3050.7	1637.0
MEAN	2.81	3.93	10.9	12.1	5.41	3.25	2.96	2.62	2.96	4.85	98.4	54.6
MAX	3.7	9.7	17	16	11	4.5	3.9	3.9	50	24	1090	190
MIN	2.0	2.7	3.2	8.8	2.3	2.2	2.5	1.8	.70	.97	1.1	5.3
AC-FT	173	234	672	743	301	200	176	161	176	298	6050	3250

CAL YR 1980 TOTAL 14495.20 MEAN 39.6 MAX 920 MIN 2.0 AC-FT 28750
WTR YR 1981 TOTAL 6267.22 MEAN 17.2 MAX 1090 MIN .70 AC-FT 12430

07221500 CANADIAN RIVER NEAR SANCHEZ, NM
(Surveillance network station)

LOCATION.--Lat 35°39'08", long 104°22'39", in SW¼ sec. 34, T. 17 N., R. 24 E., San Miguel County, Hydrologic Unit 11080003 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) north-east 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 mi^2 (15,579 km^2), of which 303 mi^2 (785 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1912 to December 1914, October 1935 to current year. Monthly discharge only for some periods, published in WSP 1311.
REVISED RECORDS.--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.
GAGE.--Water-stage recorder. Altitude of gage is 4,495 ft (1,370 m), from topographic map. See WSP 2121 for history of changes prior to November 1966. Supplemental water-stage recorder at site 0.6 mi (1.0 km) upstream used at various times since 1966.
REMARKS.--Water-discharge records fair except those below 100 ft^3/s (2.8m^3/s), which are poor. Diversions for irrigation of about 56,000 acres (230 km^2) above station.
AVERAGE DISCHARGE.--48 years (water years 1913-14, 1936-81), 187 ft^3/s (5.296 m^3/s), 135,500 acre-ft/yr (167 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 145,000 ft^3/s (4,110 m^3/s) June 18, 1965, gage height, about 38.1 ft (11.61 m), from floodmarks, present site and datum, from rating curve extended above 91,000 ft^3/s (2,600 m^3/s) on basis of slope-area measurement of peak flow; no flow at times.
EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Sept. 29, or 30, 1904, probably exceeded 100,000 ft^3/s (2,800 m^3/s), but is believed to have been less than the peak of June 18, 1965.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,500 ft^3/s (99 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Aug. 10	2400	6160	174	10.31	3.142	Aug. 12	1030	*9810	278	11.73	3.575
Aug. 11	1400	4920	139	9.57	2.917	Aug. 13	1445	4990	141	9.63	2.935

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	2.7	7.0	19	7.0	3.8	4.7	.20	64	22	82	261
2	4.0	2.7	6.4	19	6.0	4.3	4.5	.18	81	7.1	37	167
3	3.8	2.8	8.0	18	5.7	3.5	4.3	.28	48	15	65	106
4	3.8	2.8	9.9	19	4.5	3.8	3.8	.30	35	978	189	65
5	3.5	2.9	11	19	4.5	4.0	4.5	.25	41	424	474	131
6	3.3	3.1	10	17	4.5	4.0	5.2	.14	43	215	150	79
7	3.8	3.4	9.9	18	5.5	4.5	5.5	.25	24	131	518	245
8	3.8	3.2	13	19	5.7	5.7	4.6	.39	14	123	336	378
9	3.5	3.0	12	20	6.0	5.5	4.1	.14	11	185	593	531
10	3.1	3.1	7.4	20	6.0	4.3	3.7	.00	7.9	80	1720	340
11	2.9	2.9	5.2	19	4.0	5.7	3.4	.00	6.0	64	3630	273
12	2.9	2.9	4.5	17	5.7	6.4	2.3	2.5	4.1	35	5000	234
13	2.9	3.2	4.0	16	4.7	5.5	1.5	4.1	2.6	19	4090	329
14	2.9	3.5	4.0	13	4.0	5.5	.98	2.6	1.5	11	1610	325
15	2.7	3.9	4.3	11	3.5	6.0	1.2	2.7	.89	9.5	690	249
16	2.5	4.4	4.7	9.0	3.8	5.5	1.4	4.3	.39	6.9	1110	197
17	2.5	4.5	6.0	8.3	3.5	5.5	1.1	2.9	.04	4.6	1020	156
18	2.7	4.3	8.7	7.7	3.5	5.2	.99	1.7	.00	25	820	122
19	2.7	4.7	9.0	6.7	2.9	6.7	.74	1.1	.00	58	927	110
20	2.9	6.4	10	8.3	2.1	8.3	.84	.78	.00	29	366	93
21	3.1	6.7	12	7.0	1.9	8.0	.77	.70	.00	69	402	78
22	3.3	6.4	12	8.7	2.0	7.4	.89	.52	.00	23	238	62
23	3.5	6.0	11	9.4	1.9	7.0	1.1	.10	.00	21	305	50
24	3.0	5.7	13	9.0	2.0	6.0	1.1	.00	.00	22	246	43
25	3.0	7.4	17	8.7	2.0	5.5	.83	.00	.00	17	157	37
26	3.0	6.7	16	9.9	1.6	5.0	.47	.00	.00	17	118	33
27	2.9	8.0	17	9.0	1.6	4.3	.42	.00	.00	12	90	31
28	2.8	7.7	19	8.7	1.6	4.3	.46	.00	.00	324	90	28
29	2.7	7.7	19	7.4	---	4.7	.41	.00	.00	245	169	24
30	2.7	7.4	21	7.7	---	5.2	.29	.13	420	113	243	20
31	2.7	---	19	8.0	---	5.5	---	.77	---	79	182	---
TOTAL	97.7	140.1	331.0	397.5	107.7	166.6	66.09	27.03	804.42	3384.1	25667	4797
MEAN	3.15	4.67	10.7	12.8	3.85	5.37	2.20	.87	26.8	109	828	160
MAX	4.8	8.0	21	20	7.0	8.3	5.5	4.3	420	978	5000	531
MIN	2.5	2.7	4.0	6.7	1.6	3.5	.29	.00	.00	4.6	37	20
AC-FT	194	278	657	788	214	330	131	54	1600	6710	50910	9510

CAL YR 1980 TOTAL 33684.64 MEAN 92.0 MAX 1560 MIN .12 AC-FT 66810
WTR YR 1981 TOTAL 35986.24 MEAN 98.6 MAX 5000 MIN .00 AC-FT 71380

07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1975 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
NOV											
19...	1330	4.7	650	7.9	10.0	5.5	--	24	270	78	--
JAN											
12...	1230	18	945	8.4	13.5	3.0	11.6	250	360	190	--
MAR											
18...	1345	5.7	1800	8.4	13.0	12.0	10.2	22	680	--	540
MAY											
15...	0900	2.6	1300	8.0	19.5	16.0	8.2	8	490	--	290
JUN											
02...	1400	69	2900	8.2	26.5	26.5	7.8	--	--	--	--
JUL											
14...	1300	12	950	7.9	36.0	29.0	6.8	50	330	--	210
AUG											
10...	1600	2100	450	7.6	25.0	22.0	--	--	--	--	--
SEP											
15...	1530	231	675	8.4	28.0	22.0*	7.5	55	270	--	140

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
NOV											
19...	58	30	58	1.5	4.0	190	160	25	.5	3.1	453
JAN											
12...	79	40	70	1.6	2.5	--	320	12	.5	8.2	634
MAR											
18...	140	79	150	2.5	3.4	140	740	41	.4	3.2	1240
MAY											
15...	99	58	120	2.4	5.6	200	490	43	.5	2.6	939
JUN											
02...	--	--	--	--	--	--	--	--	--	--	--
JUL											
14...	84	29	61	1.5	4.8	120	320	13	.3	10	594
AUG											
10...	--	--	--	--	--	--	--	--	--	--	--
SEP											
15...	67	25	48	1.4	3.2	130	210	9.2	.3	12	454

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV											
19...	.00	.00	.010	--	.33	.34	.030	.000	140	10	4.7
JAN											
12...	.00	.00	.050	.040	.29	.34	.060	.010	70	<10	--
MAR											
18...	.00	.00	.000	--	1.1	1.1	.050	.000	100	<10	5.1
MAY											
15...	.01	.01	.030	--	.79	.83	.070	.000	160	10	5.5
JUN											
02...	--	--	--	--	--	--	--	--	--	--	--
JUL											
14...	.01	.03	.070	.120	1.1	1.2	.080	.010	60	10	5.5
AUG											
10...	--	--	--	--	--	--	--	--	--	--	--
SEP											
15...	.15	.15	.100	--	1.5	1.8	.330	--	30	<10	15

07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
NOV										
19...	1330	1	1	140	0	<1	0	0	5	5
MAY										
15...	0900	1	2	160	0	<1	0	10	2	1

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV									
19...	10	0	0	.0	.0	0	0	770	8
MAY									
15...	10	3	1	.1	.0	0	1	0	5

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO-GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO-GEN,TOT IN BOT-TOM MA-TERIAL (MG/KG AS N) (00603)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)
MAY								
15...	0900	.0	24	43	250	0	2	1

DATE	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)
MAY							
15...	5	7	480	20	1100	.01	3

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
MAY									
15...	0900	<.21	1.5	<9.7	2.5	<9.4	2.4	.08	3.5

07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLORDANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DIAZINON, TOTAL (UG/L) (39570)	DIELDRIN TOTAL (UG/L) (39380)
MAY									
15...	0900	--	--	--	--	--	--	--	--
SEP									
15...	1530	.00	.00	.00	.00	.00	.00	.00	.00

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALATHION, TOTAL (UG/L) (39530)	METHOXYCHLOR, TOTAL (UG/L) (39480)	METHYL PARATHION, TOTAL (UG/L) (39600)
MAY									
15...	--	--	--	--	--	--	--	--	--
SEP									
15...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL TRITHION, TOTAL (UG/L) (39790)	PARATHION, TOTAL (UG/L) (39540)	TOXAPHENE, TOTAL (UG/L) (39400)	TOTAL TRITHION (UG/L) (39786)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PERTHANE TOTAL (UG/L) (39034)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
MAY									
15...	--	--	--	--	.00	.00	--	--	--
SEP									
15...	.00	.00	0	.00	--	--	.00	.00	.00

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV			
19...	1330	0	7
JAN			
12...	1230	1	0
MAR			
18...	1345	0	3
MAY			
15...	0900	510	250
JUL			
14...	1300	240	230
SEP			
15...	1530	390	300

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
19...	1330	4.7	5.5	16	.20	91
JAN						
12...	1230	18	3.0	11	.53	90
MAR						
18...	1345	5.7	12.0	27	.42	99
MAY						
15...	0900	2.6	16.0	34	.24	83
JUN						
02...	1400	69	26.5	49	9.1	94
JUL						
14...	1300	12	29.0	64	2.1	100
AUG						
10...	1600	2100	22.0	13300	75400	92
SEP						
15...	1530	231	22.0	483	301	100

07222500 CONCHAS RIVER AT VARIADERO, NM

LOCATION.--Lat 35°24'10", long 104°26'35", in NE¼NE¼ sec.36, T.14 N., R.23 E., San Miguel County, Hydrologic Unit 11080005, 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 mi^2 (1,355 km^2), of which 130 mi^2 (337 km^2) is probably noncontributing.
PERIOD OF RECORD.--October 1936 to current year.
REVISED RECORDS.--WSP 1281: 1937-39, 1941-47.
GAGE.--Water-stage recorder. Altitude of gage is 4,390 ft (1,340 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.
REMARKS.--Records poor. Diversions for irrigation of about 300 acres (1.2 km^2) above station. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--45 years, 14.9 ft^3/s (0.422 m^3/s), 10,800 acre-ft/yr (13.3 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,000 ft^3/s (1,250 m^3/s) Sept. 1, 1942, gage height, 19.96 ft (6.084 m), present datum, from rating curve extended above 760 ft^3/s (22 m^3/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.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft^3/s (42 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Aug. 12	a0100	*7750	219	10.10	3.078	Sept. 5	2130	2090	59.2	5.16	1.573

a About

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	36	.00	.79
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.8	.18	.68
3	.00	.00	.00	.00	.00	.02	.00	.00	.00	2.4	.22	.48
4	.00	.00	.00	.00	.00	.02	.00	.00	.00	290	24	61
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	70	108	272
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	9.5	208	152
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.0	14	20
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.3	4.4	7.8
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.4	1.2	5.1
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.23	3.9
11	.00	.00	.00	.00	.00	.04	.00	.00	.00	.68	.03	2.8
12	.00	.00	.00	.00	.00	.06	.00	.00	.00	.43	1500	1.9
13	.00	.00	.00	.00	.00	.06	.00	.00	.00	17	71	2.1
14	.00	.00	.00	.00	.00	.09	.00	.00	.00	3.2	26	1.2
15	.00	.00	.00	.00	.00	.09	.00	.00	.00	.91	15	.97
16	.00	.00	.00	.00	.00	.06	.00	.00	.00	.27	9.4	.79
17	.00	.00	.00	.00	.00	.02	.00	.00	.00	91	7.3	.63
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	38	5.5	.58
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.2	5.8	.48
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.3	3.7	.35
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.2	3.7	.27
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	3.6	.17
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.35	2.5	.24
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	1.9	29
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	1.4	6.7
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.97	2.6
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	8.4	1.5
28	.00	.00	.00	.00	.00	.00	.00	.00	4.9	.04	5.1	.91
29	.00	.00	.00	.00	---	.00	.00	.00	86	.03	2.9	.48
30	.00	.00	.00	.00	---	.00	.00	.00	380	.01	1.8	.27
31	.00	---	.00	.00	---	.00	---	.00	---	.00	1.1	---
TOTAL	.00	.00	.00	.00	.00	.46	.00	.00	470.90	587.25	2037.33	577.69
MEAN	.000	.000	.000	.000	.000	.015	.000	.000	15.7	18.9	65.7	19.3
MAX	.00	.00	.00	.00	.00	.09	.00	.00	380	290	1500	272
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.17
AC-FT	.00	.00	.00	.00	.00	.9	.00	.00	934	1160	4040	1150

CAL YR 1980 TOTAL 66.07 MEAN .18 MAX 42 MIN .00 AC-FT 131
WTR YR 1981 TOTAL 3673.63 MEAN 10.1 MAX 1500 MIN .00 AC-FT 7290

NOTE.--No gage-height record Aug. 6-12.

07223000 BELL RANCH CANAL BELOW CONCHAS DAM, NM

LOCATION.--Lat 35°24'10", long 104°11'07", San Miguel County, Hydrologic Unit 11080006, 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 OR 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.
REMARKS.--Records good except those below 1.0 ft^3/s (0.03 m^3/s), which are poor. Canal diverts from Conchas Lake (station 07223500) for irrigation of about 700 acres (3 km^2) on Bell Ranch. Several observations of water temperature were made during the year.
EXTREMES FOR 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.

MONTHLY DIVERSION, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Month	Maximum	Minimum	Mean	Diversion in acre-feet
October	11	3.1	5.91	364
November	1.6	0	.053	3.2
December	5.9	0	.82	50
CAL YR 1980	16	0	3.55	2,580
January	0	0	0	0
February	3.0	0	1.22	68
March	5.3	2.8	3.91	240
April	8.3	6.4	7.53	448
May	7.9	0	6.95	428
June	3.8	0	2.22	132
July	3.3	0	2.66	164
August	3.6	0	1.11	68
September	4.3	0	2.69	160
WTR YR 1981	11	0	2.93	2,120

07223300 CONCHAS CANAL BELOW CONCHAS DAM, NM

LOCATION.--Lat 35°22'51", long 104°10'58", San Miguel County, Hydrologic Unit 11080006, in Pablo Montoya Grant, in Conchas Canal operations building below Conchas Dam, and 21.5 mi (34.6 km) north of Newkirk.
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 (2.286 m) diameter steel diversion conduits. Prior to Nov. 19, 1948, water-stage recorder at site 0.2 mi (0.3 km) downstream. Nov. 19, 1948 to Dec. 13, 1973, and Jan. 1 to Dec. 31, 1979, water-stage recorder at site 1.0 mi (1.6 km) downstream.
REMARKS.--Water is diverted from Conchas Lake for irrigation of about 35,000 acres (140 km^2) on Tucumcari Project (1966 conditions).
COOPERATION.--Records furnished by Corps of Engineers.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 751 ft^3/s (21.3 m^3/s) Aug. 31, 1961; no flow many days each year.

MONTHLY DIVERSION, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Month	Mean	Diversion in acre-feet
October	179	11,000
November	0	0
December	0	0
CAL YR 1980	100	72,850
January	0	0
February	0	0
March	0	0
April	194	11,570
May	148	9,070
June	157	9,320
July	70.3	4,320
August	51.9	3,190
September	105	6,250
WTR YR 1981	75.6	54,720

07223500 CONCHAS LAKE AT CONCHAS DAM, NM

LOCATION.--Lat 35°24'10", long 104°11'25", San Miguel County, Hydrologic Unit 11080003, 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 mi^2 (19,189 km^2), of which 433 mi^2 (1,121 km^2), 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 National Geodetic Vertical Datum of 1929.

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 hm^3) between elevations 4,060.0 ft (1,237.49 m) and 4,201.0 ft (1,280.46 m), crest of 300 ft (91.4 m) ungated service spillway. Inactive storage, 70,490 acre-ft (86.9 hm^3) 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 (95.9 hm^3), except for minor sluicing; at times irrigation water is pumped into Conchas Canal. Capacity of 198,800 acre-ft (245 hm^3) 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. Diversions above station for irrigation of about 57,000 acres (230 km^2). Direct diversions through Conchas Dam to Bell Ranch Canal and Conchas Canal (stations 07223000, 07223300) irrigate about 36,000 acres (150 km^2) near Tucumcari, and on Bell Ranch.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 479,600 acre-ft (591 hm^3) Apr. 24, 1942, elevation, 4,208.41 ft (1,282.723 m); minimum after initial filling, 78,080 acre-ft (96.3 hm^3) Sept. 18, 1976, elevation, 4,157.44 ft (1,267.188 m); minimum elevation, 4,155.80 ft (1,266.688 m) Sept. 24, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 158,200 acre-ft (195 hm^3) Sept. 17-18, elevation, 4,177.05 ft (1,273.165 m); minimum, 77,440 acre-ft (95.5 hm^3) June 29-30, elevation, 4,157.24 ft (1,267.127 m).

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

4,150	56,350	4,170	125,100
4,160	86,520	4,180	173,900

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129600	115900	114900	114700	114800	114400	113700	99490	87950	79560	80340	151700
2	129100	115900	114900	114700	114800	114400	113400	99040	87710	79750	80530	151700
3	128700	115800	114900	114800	114800	114500	112800	98520	87610	79750	80370	151600
4	128200	115800	114800	114800	114800	114500	112300	97970	87580	80860	80600	151500
5	127700	115700	114800	114800	114800	114500	112100	97560	87340	81970	81250	152100
6	127100	115700	114800	114800	114700	114400	111700	97230	87130	82570	82270	153900
7	126700	115700	114800	114800	114700	114400	111100	96720	86890	82930	82400	154500
8	126100	115600	114800	114800	114700	114400	110700	96240	86620	83060	83330	154700
9	125600	115500	114800	114800	114600	114400	110200	95800	86250	83230	85740	155500
10	124900	115500	114800	114800	114700	114300	109700	95440	85910	83430	89780	156200
11	124400	115500	114800	114800	114600	114400	109200	95040	85570	83630	110400	156500
12	123800	115500	114800	114800	114600	114500	108600	94720	85100	83660	123300	156900
13	123200	115400	114700	114800	114600	114500	108000	94390	84600	83960	131500	157200
14	122700	115300	114700	114900	114600	114500	107600	94070	84000	84000	135200	157700
15	122100	115300	114700	114900	114600	114600	107100	93850	83430	83960	137100	158000
16	121500	115300	114700	114900	114600	114600	106600	93460	82900	83930	138900	158100
17	121000	115200	114700	114900	114600	114500	106000	93100	82300	83930	141400	158200
18	120400	115200	114700	114900	114500	114400	105700	92740	81740	84100	142300	158200
19	119900	115200	114700	114900	114600	114400	105200	92420	81280	84100	144500	158100
20	119400	115100	114700	114900	114500	114400	104700	92070	80790	84100	145500	158100
21	118800	115100	114700	114900	114500	114300	104200	91710	80340	84060	146200	157900
22	118300	115000	114700	114900	114500	114300	103800	91290	80010	83730	146800	157700
23	117800	115000	114600	114900	114500	114200	103400	90900	79490	83200	147200	157500
24	117400	115000	114600	114900	114500	114200	102900	90520	79070	82630	147800	157300
25	117100	115100	114600	114900	114500	114100	102400	90130	78750	82070	148200	157100
26	116700	115100	114600	114900	114400	114100	101900	89780	78430	81610	148400	156900
27	116300	115000	114600	114900	114400	114100	101400	89440	78010	81150	150100	156800
28	116100	115000	114700	114900	114500	114000	101000	89020	77700	80630	150800	156500
29	116100	115000	114700	115000	---	113900	100500	88680	77440	80920	151000	156200
30	116000	114900	114700	115000	---	113800	99970	88540	78780	80990	151400	155900
31	116000	---	114700	114900	---	113800	---	88230	---	80700	151500	---
MAX	129600	115900	114900	115000	114800	114600	113700	99490	87950	84100	151500	158200
MIN	116000	114900	114600	114700	114400	113800	99970	88230	77440	79560	80340	151500
(†)	4167.84	4167.58	4167.53	4167.58	4167.47	4167.30	4163.77	4160.50	4157.66	4158.25	4175.72	4176.60
(‡)	-14100	-1100	-200	+200	-400	-700	-13830	-11740	-9450	+1920	+70800	+4400

CAL YR 1980 MAX 182200 MIN 114600 ‡ -36100
WTR YR 1981 MAX 158200 MIN 77440 ‡ +25800

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

07226500 UTE CREEK NEAR LOGAN, NM

LOCATION.--Lat 35°26'18", long 103°31'31", in NW¼SE¼ sec. 15, T. 14 N., R. 32 E., Harding County, Hydrologic Unit 11090007, 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 mi^2 (5,335 km^2), of which 617 mi^2 (1,598 km^2) 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.

REVISED RECORDS.--WSP 1281: 1942-48, 1950, 1951(P). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Altitude of gage is 3,815 ft (1,163 m), from topographic map. See WSP 2121 for history of changes prior to Oct. 1, 1964.

REMARKS.--Records poor. Diversions for irrigation of a few hundred acres above station. Several observations of water temperatures were made during the year.

AVERAGE DISCHARGE.--39 years, 24.5 ft^3/s (0.694 m^3/s), 17,750 acre-ft/yr (21.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,500 ft^3/s (694 m^3/s) May 28, 1946, July 12, 1951, gage height, 8.4 ft (2.56 m), site and datum then in use, from rating curve extended above 7,700 ft^3/s (220 m^3/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, 9.94 ft (3.030 m) Aug. 11, 1981; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--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 ft^3/s (2,000 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,400 ft^3/s (408 m^3/s) Aug. 11, gage height, 9.94 ft (3.030 m), from floodmarks, from rating curve extended above 2,800 ft^3/s (79 m^3/s) on basis of slope-area measurements at gage heights 9.0 ft (2.74 m) and 9.94 ft (3.030 m), no other peak above base of 3,700 ft^3/s (100 m^3/s); no flow most of time.

REVISIONS.--The peak discharges and annual maximum (*) for water years 1965, 1967-69, 1971-72, 1975, 1977, and 1979 and daily discharges, in cubic feet per second, for water years 1972, 1977, and 1978, have been revised as shown in the following table. They supersede figures published in WSP 1921 and 2121, and reports for 1971-72, 1975, 1977 and 1979.

Water Year	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Water Year	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
1965	June 15, 1965	1100	6050	171	5.70	1.737	1969	Sept. 10, 1969	1530	3760	106	4.84	1.475
-	June 19, 1965	1430	*8360	237	6.80	2.073	1971	May 27, 1971	2300	*4460	126	5.25	1.600
-	June 25, 1965	0600	4480	127	4.88	1.487	1972	July 17, 1972	1100	*12100	343	a9.0	2.74
1967	July 5, 1967	2300	*4580	130	5.32	1.622	-	July 21, 1972	1200	10700	303	8.40	2.560
1968	Aug. 11, 1968	0130	*3400	96.3	4.63	1.411	1975	June 27, 1975	2400	*4490	127	5.27	1.606
1969	June 17, 1969	0600	4630	131	5.35	1.631	1977	May 14, 1977	1900	*8540	242	7.40	2.256
-	Sept. 7, 1969	1900	*8750	248	7.50	2.286	1979	Nov. 4, 1978	0500	*8750	248	7.50	2.286

a Revised.

July 17, 1972...2250 July 21, 1972...3450 May 14, 1977...2020 Nov. 4, 1978...2470

Month	Total	Mean	Max	Min	Ac-ft
July 1972	9350.4	302	3450	0	18550
Wtr Yr 1972	14292.86	39.1	3450	0	28350
Cal Yr 1972	15176.43	41.5	3450	0	30100
May 1977	4317.75	139	2020	0	8560
Wtr Yr 1977	9665.18	26.5	2020	0	19170
Cal Yr 1977	9665.18	26.5	2020	0	19170
Nov. 1978	2775.3	92.5	2470	0	5500
Cal Yr 1978	4157.75	11.4	2470	0	8250
Wtr Yr 1979	14853.59	40.7	2470	0	29460

NOTE.--No gage-height record Apr. 7 to Aug. 24.

07226500 UTE CREEK NEAR LOGAN, NM -- Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	20	.00	.00	9.7
2	.00	.00	.00	.00	.00	.00	.00	.00	10	.00	500	4.4
3	.00	.00	.00	.00	.00	.00	.00	.00	15	.00	70	44
4	.00	.00	.00	.00	.00	.00	.00	.00	10	250	250	67
5	.41	.00	.00	.00	.00	.00	.00	.00	10	20	300	82
6	.00	.00	.00	.00	.00	.00	.00	.00	5.0	5.0	80	189
7	.00	.00	.00	.00	.00	.00	.00	.00	2.0	.00	350	85
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	200	450	60
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	80	140	50
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	10	200	30
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5000	20
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4000	10
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2500	5.0
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1000	11
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	250	47
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	100	150	25
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	70	100	14
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.0	150	12
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	100	10
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	50	7.0
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	25	4.9
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	10	3.2
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.0	3.2
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	4.0
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.22	2.3
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.9	.99
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	142	.50
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	182	.20
29	.00	.00	.00	.00	---	.00	.00	25	100	.00	61	.00
30	.00	.00	.00	.00	---	.00	.00	300	10	.00	30	.00
31	.00	---	.00	.00	---	.00	---	70	---	.00	15	---
TOTAL	.41	.00	.00	.00	.00	.00	.00	395.00	182.00	740.00	16115.62	801.39
MEAN	.013	.000	.000	.000	.000	.000	.000	12.7	6.07	23.9	520	26.7
MAX	.41	.00	.00	.00	.00	.00	.00	300	100	250	5000	189
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.8	.00	.00	.00	.00	.00	.00	783	361	1470	31970	1590

CAL YR 1980 TOTAL 112.76 MEAN .31 MAX 62 MIN .00 AC-FT 224
WTR YR 1981 TOTAL 18234.42 MEAN 50.0 MAX 5000 MIN .00 AC-FT 36170

07226800 UTE RESERVOIR NEAR LOGAN, NM

LOCATION.--Lat 35°20'35", long 103°26'37", in NW¼ sec.21, T.13N., R.33 E., Quay County, Hydrologic Unit 11080006, 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 mi^2 (28,853 km^2), of which 1,110 mi^2 (2,875 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1963 to September 1965 (monthend contents only), October 1965 to current year.
REVISED RECORDS.--WDR NM-78-1: 1977.
GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Interstate Stream Commission). Prior to Feb. 25, 1974, nonrecording gage at same site and datum.
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, 90,470 acre-ft (112 hm^3) 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 285,700 acre-ft (352 hm^3) at elevation 3,791.0 ft (1,155.50 m), 31.0 ft (9.4 m) above crest of spillway, allows 195,200 acre-ft (241 hm^3) of capacity for protection of the structure. Dead storage, 12,620 acre-ft (15.6 hm^3) at elevation 3,725.0 ft (1,135.38 m), sill of outlet gate; inactive pool of 37,530 acre-ft (46.3 hm^3) 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 (360 km^2).
EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 119,900 acre-ft (148 hm^3) June 17, 1969, elevation, 3,762.4 ft (1,146.78 m); minimum since reservoir first filled in September 1965, 68,680 acre-ft (84.7 hm^3) Apr. 12, 1977, elevation, 3,753.59 ft (1,144.094 m); minimum elevation observed, 3,752.8 ft (1,143.85 m) May 29, 1966, contents, 82,360 acre-ft (102 hm^3).
EXTREMES FOR CURRENT YEAR.--Maximum contents, 97,580 acre-ft (120 hm^3) Aug. 12, elevation, $3,761.^{78}$ ft ($1,146.^{591}$ m); minimum, 66,500 acre-ft (82.0 hm^3) July 4, elevation, 3,752.88 ft (1,143.878 m).

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Geological Survey and New Mexico Interstate Stream Commission in 1975)

3,752	63,840	3,758	83,150
3,754	69,960	3,760	90,470
3,756	76,380	3,762	98,490

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76840	75530	74870	74520	74160	73810	73320	67910	68280	66770	67540	88390
2	76740	75530	74910	74480	74160	73780	73320	67940	68310	66740	68840	87870
3	76710	75460	74910	74480	74030	73940	73130	67940	68370	66710	69120	87320
4	76670	75430	74870	74550	74100	73780	73130	67660	68400	67390	69770	87020
5	76970	75400	74810	74480	74070	73780	73070	67660	68460	67420	70620	87130
6	77040	75430	74810	74450	74100	73780	73100	67820	68460	67390	70840	87280
7	77040	75400	74810	74420	74070	73780	73030	68030	68500	67260	72200	87460
8	77000	75360	74810	74420	74070	73810	72940	67970	68400	67790	74000	87390
9	76940	75330	74780	74360	74030	73810	73070	67910	68310	68000	74520	87090
10	76810	75300	74740	74360	73900	73840	72910	67850	68160	68000	74970	86620
11	76770	75230	74780	74390	74030	73940	72870	67850	68000	67910	94040	86440
12	76810	75270	74780	74390	73900	73940	72840	67790	68030	67850	96260	85860
13	76740	75100	74740	74390	73900	73900	72720	67600	68000	67730	95330	85170
14	76670	75070	74740	74390	74000	73970	72620	67660	67730	67600	92930	84640
15	76610	75040	74740	74320	73900	73940	72650	67510	67600	67510	91360	84040
16	76410	75070	74740	74290	73900	74070	72750	67480	67600	67910	90900	83430
17	76240	75070	74740	74320	73870	73900	72590	67360	67390	68190	90590	83500
18	76180	75040	74610	74320	73900	73870	72720	67260	67290	68190	90510	83580
19	76150	75000	74610	74360	73900	73870	72650	67230	67230	68220	90240	83650
20	76080	75000	74650	74390	73840	73940	72650	67170	67170	68220	89830	83610
21	76050	75000	74610	74320	73940	73710	72720	67110	67110	68060	89330	83580
22	76020	74910	74610	74320	73940	73680	72560	67050	66930	67940	88430	83580
23	75890	74870	74580	74360	73900	73680	72560	66960	67020	67880	88090	83680
24	75890	74940	74580	74320	73900	73650	72270	66960	66930	67760	87500	83720
25	75820	74970	74520	74320	73870	73610	71600	66860	66830	67850	86950	83890
26	75820	74970	74580	74260	73940	73680	70900	66830	66800	67820	87130	83750
27	75660	74940	74580	74290	73810	73610	70340	66830	66710	67730	87570	83750
28	75620	74940	74550	74290	73810	73610	69590	66680	66590	67690	88690	83790
29	75590	74970	74550	74190	---	73450	69020	66770	66860	67630	89750	83680
30	75590	75040	74550	74260	---	73390	68400	67940	66800	67660	89480	83720
31	75530	---	74550	74190	---	73290	---	68220	---	67630	89070	---
MAX	77040	75530	74910	74550	74160	74070	73320	68220	68500	68220	96260	88390
MIN	75530	74870	74520	74190	73810	73290	68400	66680	66590	66710	67540	83430
(†)	3755.74	3755.59	3755.44	3755.33	3755.21	3755.05	3753.50	3753.44	3752.98	3753.25	3759.63	3758.16
(‡)	-1410	-490	-490	-360	-380	-520	-4890	-180	-1420	+830	+21440	-5350

CAL YR 1980 MAX 82420 MIN 68190 ‡ -7870
WTR YR 1981 MAX 96260 MIN 66590 ‡ +6780

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

07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected in Ute Reservoir impounded by Ute Dam on the Canadian River.

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

REMARKS.--Samples for chemical analyses are collected semi-annually at surface, and/or bottom levels of selected sites. Site locations are as follows: Site A, 0.4 mi (0.6 km) upstream from Ute Dam; Site B, 0.6 mi (1.0 km) upstream from Ute Dam; Site C, 1.9 mi (3.1 km) upstream from Ute Dam; Site D, on the Ute Creek arm, 5.7 mi (9.2 km) upstream from Ute Dam; Site E, 3.8 mi (6.1 km) upstream from Ute Dam at confluence of Ute Creek and Canadian River arms; Site F, on the Canadian River arm, 9.1 mi (14.6 km) upstream from Ute Dam; Site G, on the Ute Creek arm, 6.9 mi (11.1 km) upstream from Ute Dam; Site H, on the Canadian River arm, 12.8 mi (20.6 km) upstream from Ute Dam; Site I, on the Canadian River arm, 5.0 mi (8.0 km) upstream from Ute Dam.

07226560 - UTE RESERVOIR AT SITE F (LAT 35 20 21 LONG 103 33 07)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMPLING DEPTH (FT) (00003)	RESERVOIR DEPTH (FEET) (72025)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS NONCARBONATE (MG/L AS CACO3) (95902)
MAY											
14...	0830	45.0	50	901	8.3	13.0	16.0	7.8	12	170	.00
14...	0834	40.0	50	--	--	13.0	17.0	7.8	--	--	--
14...	0838	35.0	50	--	--	13.0	17.0	8.0	--	--	--
14...	0842	30.0	50	--	--	13.0	17.0	8.3	--	--	--
14...	0846	25.0	50	--	--	13.0	17.0	8.4	--	--	--
14...	0850	20.0	50	--	--	13.0	17.0	8.4	--	--	--
14...	0854	15.0	50	--	--	13.0	17.0	8.4	--	--	--
14...	0857	10.0	50	--	--	13.0	17.0	8.4	--	--	--
14...	0900	5.00	50	895	8.5	13.0	17.0	8.4	--	--	--

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
MAY											
14...	37	20	140	4.6	6.2	230	190	46	.8	.7	579
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
MAY										
14...	.01	.02	.120	.72	.85	.050	.000	240	10	7.6
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--

07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

WATER-QUALITY RECORDS

07226560 - UTE RESERVOIR AT SITE F (LAT 35 20 21 LONG 103 33 07)

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
MAY 14...	0830	2	3	240	0	<1	0	10	5	1

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
MAY 14...	10	6	1	.1	.0	1	1	0	40

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP-LING DEPTH (FT) (00003)	RESER-VOIR DEPTH (FEET) (72025)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
MAY 14...	0830	45.0	50	17	.5	8.2	2.4	7.9	2.4	.18	11

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-AZINON, TOTAL (UG/L) (39570)	DI-ELDRIN TOTAL (UG/L) (39380)
MAY 14...	0830	.00	.00	.00	.00	.00	.00	.00	.00

DATE	ENDO-SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METHYL PARA-THION, TOTAL (UG/L) (39600)
MAY 14...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL TRI-THION, TOTAL (UG/L) (39790)	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PER-THANE TOTAL (UG/L) (39034)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
MAY 14...	.00	.00	0	.00	.00	.00	.00	.00	.00

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP-LING DEPTH (FT) (00003)	RESER-VOIR DEPTH (FEET) (72025)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
MAY 14...	0830	45.0	50	0	3

07227000 CANADIAN RIVER AT LOGAN, NM

LOCATION.--Lat 35°21'25", long 103°25'03", in NE¼NE¼ sec.15, T.13 N., R.33 E., Quay County, Hydrologic Unit 11080006, 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 mi^2 (28,855 km^2), of which 1,110 mi^2 (2,875 km^2) 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.

REVISED RECORDS.--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.

GAGE.--Water-stage recorder. Datum of gage is 3,668.1 ft (1,118.04 m) National Geodetic Vertical Datum of 1929. See WSP 1311 or 1731 for history of changes prior to Oct. 1, 1934.

REMARKS.--Records poor prior to August and fair thereafter. Flow regulated by Conchas Lake, 45 mi (72 km) upstream (station 07223500) and Ute Reservoir, 2 mi (3 km) upstream (station 07226800). Diversions for irrigation of about 90,000 acres (360 km^2) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years (water years 1909, 1912-13, 1927-38), 392 ft^3/s (11.10 m^3/s) 284,000 acre-ft/yr (350 hm3/yr), prior to completion of Conchas Dam; 24 years (water years 1939-62), 257 ft^3/s (7.278 m^3/s), 186,200 acre-ft/yr (230 hm^3/yr), prior to completion of Ute Dam; 19 years (water years 1963-81), 32.4 ft^3/s (0.918 m^3/s) 23,470 acre-ft/yr (28.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1925).--Maximum discharge, 219,000 ft^3/s (6,200 m^3/s) Sept. 22, 1941, gage height, 29.3 ft (8.93 m) from floodmarks, from rating curve extended above 75,000 ft^3/s (2,100 m^3/s); no flow at times prior to completion of Ute Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 278,000 ft^3/s (7,870 m^3/s) Sept. 30, 1904, gage height, about 36.5 ft (11.13 m), site and datum used in 1909, from rating curve extended above 14,000 ft^3/s (400 m^3/s), from Ninth Biennial Report of State Engineer.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,940 ft^3/s (225 m^3/s) Aug. 11, gage height 10.88 ft (3.316 m); minimum daily, 1.5 ft^3/s (0.042 m^3/s) Dec. 5, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.9	2.0	2.5	2.1	2.5	1.9	243	1.9	2.0	4.4	385
2	1.8	2.0	2.0	2.5	2.1	2.5	1.9	6.1	1.8	1.9	6.9	393
3	1.7	1.9	2.1	2.1	2.1	2.7	1.9	3.5	1.9	1.9	4.6	396
4	1.7	2.0	2.1	2.5	2.0	2.7	1.9	2.6	2.1	2.4	2.9	400
5	1.7	2.1	1.5	2.7	2.0	2.5	1.9	2.4	1.8	2.1	2.4	404
6	2.8	1.9	1.6	2.7	2.1	2.5	1.8	2.4	1.8	2.0	1.9	400
7	2.3	1.9	1.8	2.7	2.1	2.5	1.7	2.2	1.8	2.0	1.9	400
8	2.0	1.9	1.8	2.7	2.3	2.5	1.7	2.0	1.8	2.6	2.0	396
9	1.9	1.9	1.5	2.7	2.3	2.3	1.8	1.9	1.8	2.2	4.1	400
10	1.8	1.9	1.6	2.3	2.5	2.3	1.8	2.1	1.8	2.1	5.5	400
11	1.8	1.8	2.3	2.3	2.5	2.5	1.7	1.9	1.8	2.0	353	396
12	1.8	1.9	2.0	2.5	2.3	2.3	1.7	1.9	1.8	2.0	6280	396
13	1.8	1.9	1.8	2.5	2.3	2.1	1.7	1.9	1.8	2.3	5230	396
14	1.8	1.8	1.8	2.5	2.1	2.3	1.7	2.0	1.8	5.2	3170	396
15	1.8	1.8	1.8	2.5	2.1	2.3	1.9	1.9	1.8	5.2	1220	400
16	1.8	1.8	1.8	2.5	2.1	2.1	1.9	1.9	1.8	5.4	583	261
17	1.8	1.8	1.8	2.5	2.0	2.0	1.8	1.8	1.8	5.4	438	28
18	1.8	1.8	2.0	2.7	2.0	2.0	2.0	1.7	1.8	5.6	410	4.7
19	1.8	1.8	1.8	2.7	2.1	2.0	1.9	1.9	1.8	5.6	350	4.4
20	1.8	1.7	1.8	2.7	2.3	1.9	1.7	2.0	1.8	5.2	331	4.4
21	1.8	1.9	2.5	2.5	2.5	1.9	1.7	1.8	1.8	5.0	334	4.3
22	1.8	2.0	2.9	2.5	2.5	1.9	1.7	1.7	1.8	4.7	338	4.1
23	1.8	2.0	2.9	2.5	2.5	1.9	1.6	1.8	1.8	4.7	341	11
24	1.8	2.3	2.1	2.5	2.3	1.9	89	1.8	1.8	4.9	345	5.5
25	1.8	2.3	2.1	2.5	2.3	1.9	268	1.9	1.8	4.8	348	4.1
26	1.8	2.1	2.3	2.5	2.3	1.9	292	1.9	1.8	5.0	356	3.9
27	2.1	2.1	2.1	2.3	2.7	1.9	295	1.8	1.8	5.6	360	3.7
28	1.8	2.0	2.3	2.3	2.7	1.9	295	1.8	1.8	5.5	363	3.7
29	1.8	2.1	2.0	2.1	---	1.9	292	2.1	1.9	5.1	371	3.6
30	1.8	2.1	2.1	2.1	---	1.9	288	2.9	2.2	4.7	374	3.7
31	1.9	---	2.3	2.1	---	1.9	---	2.3	---	4.7	382	---
TOTAL	57.7	58.4	62.5	76.7	63.2	67.4	1860.3	308.9	55.0	119.8	22313.6	6308.1
MEAN	1.86	1.95	2.02	2.47	2.26	2.17	62.0	9.96	1.83	3.86	720	210
MAX	2.8	2.3	2.9	2.7	2.7	2.7	295	243	2.2	5.6	6280	404
MIN	1.7	1.7	1.5	2.1	2.0	1.9	1.6	1.7	1.8	1.9	1.9	3.6
AC-FT	114	116	124	152	125	134	3690	613	109	238	44260	12510

CAL YR 1980 TOTAL 7175.9 MEAN 19.6 MAX 312 MIN 1.2 AC-FT 14230
WTR YR 1981 TOTAL 31351.6 MEAN 85.9 MAX 6280 MIN 1.5 AC-FT 62190

07227100 REVUELTO CREEK NEAR LOGAN, NM

LOCATION.--Lat 35°20'28", long 103°23'40", in SW¼NW¼ sec.24, T.13 N., R.33 E., Quay County, Hydrologic Unit 11080008, 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 mi^2 (2,036 km^2).

WATER-DISCHARGE RECORDS

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. Prior to Jan. 16, 1981, at site 320 ft (98 m) upstream at datum 0.56 ft (0.171 m) higher.
REMARKS.--Water-discharge records poor prior to February and fair thereafter. Low flows supplemented by surface and ground water return from irrigation in vicinity of Tucumcari.
AVERAGE DISCHARGE.--22 years, 46.0 ft^3/s (1.303 m^3/s), 33,330 acre-ft/yr (41.1 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,700 ft^3/s (756 m^3/s) July 9, 1960, gage height, 14.3 ft (4.36 m), site and datum then in use; no flow at times most years.
EXTREMES OUTSIDE PERIOD OF RECORD (1941-47).--Maximum discharge determined, about 13,400 ft^3(379 m^3/s) Sept. 18, 1946, gage height, 9.04 ft (2.755 m), at site 180 ft (55 m) downstream at different datum, from unpublished records collected by Bureau of Reclamation.
A peak of 26,100 ft^3/s (739 m^3/s), date unknown, gage height, 12.9 ft (3.93 m) at former site and datum, was measured by slope-area method in May 1957.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,500 ft^3/s (99 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 29	2345	5050	143	7.01	2.137	Aug. 11	0700	*15200	430	11.70	3.566
June 4	0030	3780	107	6.18	1.884	Aug. 12	1100	7400	210	8.31	2.533
June 11	2315	4340	123	6.56	1.999	Aug. 27	0430	4000	113	6.33	1.929
June 30	0200	3670	104	6.10	1.859	Sept. 5	1345	5140	146	7.07	2.155
Aug. 2	2100	4300	122	6.53	1.990						

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	16	2.9	1.6	1.1	.48	.00	.00	161	235	.00	1.7
2	5.9	15	2.1	1.6	1.1	.55	.00	.00	82	18	524	.85
3	6.0	12	1.8	1.6	1.1	1.0	.00	.00	103	2.7	711	.34
4	6.0	8.3	1.8	1.6	1.1	1.5	.02	.00	625	164	337	320
5	6.0	8.4	1.8	1.5	1.5	1.1	.01	.00	13	245	17	1360
6	14	9.9	1.6	1.4	1.5	1.0	.00	.00	1.9	13	62	455
7	10	7.4	1.6	1.4	1.1	1.9	.00	6.4	.90	3.2	261	155
8	9.4	5.7	1.0	1.2	1.1	4.0	.00	.56	.37	39	305	67
9	7.2	5.0	1.1	1.2	1.1	2.3	.00	.21	.24	527	173	27
10	6.0	5.0	1.4	1.2	1.4	1.7	.00	.09	.21	264	719	21
11	7.2	5.0	1.2	1.3	2.5	6.7	.00	.14	236	37	6450	14
12	7.2	4.8	1.3	1.5	1.4	18	.00	.01	458	16	4330	17
13	7.1	5.0	1.4	1.3	.71	2.5	.00	.00	6.8	4.8	1950	22
14	11	4.5	.96	1.2	.80	.90	.00	.00	.06	1.5	219	28
15	13	4.5	1.2	1.6	1.1	2.8	.02	.00	.00	.63	164	14
16	11	5.0	1.1	2.0	.90	1.5	.40	.00	.00	2.2	212	5.0
17	11	7.4	1.0	2.1	.80	.27	.62	.00	.00	18	196	11
18	12	21	1.0	2.8	.71	.09	.42	.00	.00	4.4	101	7.4
19	14	11	1.0	5.8	.63	.04	.92	.00	.00	2.5	66	13
20	14	4.0	1.0	5.8	.48	.01	.77	.00	.00	.50	28	16
21	14	2.8	1.2	4.0	1.0	.00	.25	.00	.00	.20	16	23
22	13	2.3	1.4	4.0	1.7	.00	1.4	.00	.00	.11	12	35
23	11	2.3	1.8	3.6	1.7	.00	3.4	.00	268	.10	8.6	87
24	11	2.4	1.6	3.6	1.0	.00	.76	.00	270	.33	6.8	733
25	15	4.5	1.6	3.0	.63	.00	.48	.00	32	.09	3.3	223
26	17	3.2	1.8	1.9	.42	.00	.16	.00	4.1	.02	2.6	60
27	18	10	1.5	1.5	.48	.00	.00	.00	1.2	.05	885	22
28	18	22	1.4	1.7	.55	.00	.00	.00	.21	.06	38	9.8
29	18	21	1.6	1.5	---	.00	.00	189	209	.08	16	5.4
30	21	3.7	1.2	1.2	---	.00	.00	1600	1820	.06	5.6	3.3
31	20	---	1.4	1.2	---	.00	---	545	---	.02	4.1	---
TOTAL	361.7	239.1	44.76	66.9	29.61	48.34	9.63	2341.41	4292.99	1599.55	17823.00	3756.79
MEAN	11.7	7.97	1.44	2.16	1.06	1.56	.32	75.5	143	51.6	575	125
MAX	21	22	2.9	5.8	2.5	18	3.4	1600	1820	527	6450	1360
MIN	5.9	2.3	.96	1.2	.42	.00	.00	.00	.00	.02	.00	.34
AC-FT	717	474	89	133	59	96	19	4640	8520	3170	35350	7450

CAL YR 1980 TOTAL 6117.74 MEAN 16.7 MAX 549 MIN .00 AC-FT 12130
WTR YR 1981 TOTAL 30613.78 MEAN 83.9 MAX 6450 MIN .00 AC-FT 60720

07227100 REVUELTO CREEK NEAR LOGAN, NM -- Continued

WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT											
24...	1025	11	1270	8.5	13.0	6.0	--	--	--	--	--
NOV											
20...	1340	5.6	1500	8.4	13.5	9.5	280	47	--	58	32
DEC											
18...	1605	1.0	2020	8.6	14.0	12.5	--	--	--	--	--
JAN											
12...	1550	1.5	2080	8.6	16.5	9.5	--	--	--	--	--
FEB											
19...	1140	.63	3900	8.6	23.0	15.0	340	19	--	63	44
MAR											
19...	1215	.04	3260	8.5	19.0	17.0	--	--	--	--	--
APR											
07...	0920	.02	4460	8.3	--	9.5	--	--	--	--	--
JUN											
04...	0900	298	320	8.9	24.0	18.0	--	--	--	--	--
JUL											
15...	1515	.60	1650	8.6	29.0	29.0	--	--	--	--	--
AUG											
11...	1530	5870	330	8.9	26.0	20.5	25	--	.00	7.4	1.7
SEP											
17...	1000	12	900	8.4	13.0	14.0	--	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
OCT											
24...	--	--	--	--	--	--	--	--	--	--	--
NOV											
20...	250	6.5	5.1	230	420	83	.6	6.2	993	270	<10
DEC											
18...	--	--	--	--	--	--	--	--	--	--	--
JAN											
12...	--	--	--	--	--	--	--	--	--	--	--
FEB											
19...	740	18	4.2	320	360	950	.8	8.5	2360	480	20
MAR											
19...	--	--	--	--	--	--	--	--	--	--	--
APR											
07...	--	--	--	--	--	--	--	--	--	--	--
JUN											
04...	--	--	--	--	--	--	--	--	--	--	--
JUL											
15...	--	--	--	--	--	--	--	--	--	--	--
AUG											
11...	--	--	1.5	100	64	8.3	.2	3.4	--	80	51
SEP											
17...	--	--	--	--	--	--	--	--	--	--	--

07227100 REVUELTO CREEK NEAR LOGAN, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
24...	1025	11	6.0	117	3.5	--
NOV						
20...	1340	5.6	9.5	605	9.1	65
DEC						
18...	1605	1.0	12.5	27	.07	--
JAN						
12...	1550	1.5	9.5	9	.04	--
FEB						
19...	1140	.63	15.0	20	.03	99
MAR						
19...	1215	.04	17.0	64	.01	99
APR						
07...	0920	.02	9.5	1	.00	--
JUN						
04...	0900	298	18.0	19800	15900	97
JUL						
15...	1530	.60	29.0	92	.15	97
AUG						
11...	1530	5870	20.5	21900	347000	66
SEP						
17...	1000	12	14.0	665	22	98

07227140 CANADIAN RIVER ABOVE NEW MEXICO-TEXAS STATE LINE, NM
(National stream-quality accounting network station)

LOCATION.--Lat 35°23'35", long 103°02'30", in SW¼ sec.32, T.14 N., R.37 E., Quay County, Hydrologic Unit 11080006, 0.1 mi (0.2 km) upstream from New Mexico-Texas State line, 5.5 mi (8.8 km) downstream from Rana Canyon, and 14.7 mi (23.7 km) north of Glenrio.

DRAINAGE AREA.--12,616 mi^2 (32,675 km^2).

PERIOD OF RECORD.--Water years 1969 - 73. 1975 to current year.

REMARKS.--Water-discharge measurements were made at the time water-quality samples were collected.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT												
24...	0820	14	5813	8.5	1.5	2.5	2.0	12.4	500	280	--	110
NOV												
20...	1000	18	8230	8.3	1.0	3.0	80	--	620	370	--	140
DEC												
18...	1340	8.7	7900	8.3	25.5	13.0	42	10.1	620	380	--	130
JAN												
13...	0930	E12	9380	8.5	5.0	1.0	.30	13.0	670	410	--	140
FEB												
19...	0850	2.0	9700	8.4	11.0	4.5	16	11.9	650	400	--	130
MAR												
19...	0915	11	6750	8.5	13.0	7.0	230	11.3	500	--	320	100
MAY												
14...	1130	3.7	7200	8.4	21.0	21.5	6.2	9.4	590	--	360	110
JUN												
03...	1130	34	3000	8.6	27.0	23.0	440	7.6	220	--	62	51
JUL												
15...	1030	114	610	8.1	29.0	24.0	3400	6.7	63	--	.00	17
SEP												
16...	1245	294	980	8.3	16.0	17.0	200	6.8	130	--	.00	30

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
OCT												
24...	54	1100	21	11	220	--	--	--	--	8.4	--	--
NOV												
20...	66	1600	28	12	--	250	370	2500	.5	11	4830	4850
DEC												
18...	72	1700	30	8.9	--	240	480	2700	.5	12	5160	5250
JAN												
13...	77	1700	29	7.5	--	260	440	2700	.7	12	5320	5240
FEB												
19...	80	1900	32	8.6	--	250	480	3000	.5	10	5630	5760
MAR												
19...	61	1200	23	6.3	--	180	380	1900	.5	9.7	4270	3770
MAY												
14...	77	1400	25	10	--	230	470	2200	.5	6.8	4420	4410
JUN												
03...	23	490	14	5.0	--	160	230	650	.4	7.7	1610	1550
JUL												
15...	5.0	110	6.0	4.0	--	120	38	120	.2	4.8	321	374
SEP												
16...	14	170	7.1	5.0	--	170	110	150	.8	6.0	559	589

07227140 CANADIAN RIVER ABOVE NEW MEXICO-TEXAS STATE LINE, NM
(National stream-quality accounting network station)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
OCT												
24...	.17	.18	.010	.000	.49	.67	.210	--	--	6.0	--	--
NOV												
20...	.35	.32	.020	.030	.46	.83	.070	--	--	4.8	--	--
DEC												
18...	.50	.49	.020	.070	.39	.91	.060	60	50	--	18	.3
JAN												
13...	.51	.51	.050	.100	.64	1.2	.020	--	--	8.9	--	--
FEB												
19...	.34	.34	.090	.070	.56	.99	.030	--	--	12	--	--
MAR												
19...	.44	.72	.070	.020	1.7	2.2	.160	50	60	--	4.6	.9
MAY												
14...	.01	.01	.140	.140	.47	.62	.050	--	--	4.4	--	--
JUN												
03...	.13	.18	--	.150	--	--	.020	40	10	--	--	1.4
JUL												
15...	.39	.64	.050	.530	6.4	6.8	2.10	--	--	12	--	--
SEP												
16...	.26	.16	.240	.180	.96	1.5	.180	12	<1	--	5.6	.5

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)
DEC										
18...	1340	2	2	100	100	0	0	30	20	3
MAR										
19...	0915	2	3	--	100	--	0	--	10	--
JUN										
03...	1130	10	4	300	200	0	3	10	10	5
SEP										
16...	1245	0	3	300	190	1	<1	10	10	3

DATE	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)
DEC										
18...	0	3	0	590	60	5	0	80	50	.2
MAR										
19...	1	--	2	--	50	--	0	--	60	.1
JUN										
03...	0	14	4	7200	40	4	4	210	10	.1
SEP										
16...	0	15	6	5300	12	9	3	220	<1	.1

DATE	MERCURY DISSOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
DEC									
18...	.0	4	0	1	1	0	0	30	30
MAR									
19...	.1	--	1	1	1	--	0	--	10
JUN									
03...	.0	14	3	1	1	0	0	60	20
SEP									
16...	.0	9	2	0	1	0	0	60	14

07227140 CANADIAN RIVER ABOVE NEW MEXICO-TEXAS STATE LINE, NM
(National stream-quality accounting network station)

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
24...	0820	22	92
NOV			
20...	1000	560	250
DEC			
18...	1340	2	11
JAN			
13...	0930	3	14
FEB			
19...	0850	12	9
MAR			
19...	0915	10	270
MAY			
14...	1130	3	1
JUN			
03...	1130	7500	240
JUL			
15...	1030	16000	4900
SEP			
16...	1245	130	60

07227140 CANADIAN RIVER ABOVE NEW MEXICO-TEXAS STATE LINE, NM
(National stream-quality accounting network station)

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 20,80		MAR 19,81		MAY 14,81		JUN 3,81		SEP 16,81	
TIME	1000		0915		1130		1130		1245	
TOTAL CELLS/ML	2500		1800		15000		3500		190	
DIVERSITY: DIVISION	0.2		0.2		1.0		1.4		0.9	
.CLASS	0.2		0.2		1.0		1.4		0.9	
..ORDER	1.7		2.2		1.1		2.3		0.9	
...FAMILY	1.7		2.4		1.1		3.1		1.6	
....GENUS	1.8		2.4		1.1		3.2		1.6	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)										
.BACILLARIOPHYCEAE										
..ACHNANTHALES										
...ACHNANTHACEAE										
....ACHNANTHES	25	1	510#	28	--	-	120	3	--	-
....COCCONEIS	--	-	--	-	--	-	20	1	--	-
..BACILLARIALES										
...NITZSCHIACEAE										
....HANTZSCHIA	25	1	--	-	--	-	--	-	--	-
....NITZSCHIA	350	14	560#	31	80	1	20	1	62#	33
..EUPODISCALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	28	2	10000#	68	960#	28	--	-
..FRAGILARIALES										
...FRAGILARIACEAE										
....SYNEDRA	--	-	42	2	--	-	--	-	--	-
..NAVICULALES										
...CYMBELLACEAE										
....AMPHORA	--	-	--	-	--	-	20	1	--	-
....CYMBELLA	--	-	28	2	--	-	--	-	--	-
...GOMPHONEMACEAE										
....GOMPHONEMA	--	-	70	4	--	-	--	-	--	-
...NAVICULACEAE										
....NAVICULA	860#	34	450#	25	--	-	240	7	--	-
..SURIRELLALES										
...SURIRELLACEAE										
....SURIRELLA	1200#	47	56	3	--	-	--	-	--	-
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHLOROCOCCACEAE										
....SCHROEDERIA	--	-	28	2	--	-	--	-	62#	33
...DICTYOSPHAERIACEAE										
....DICTYOSPHAERIUM	--	-	--	-	--	-	160	5	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	--	-	--	-	--	-	640#	18	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	14	1	80	1	120	3	62#	33
....KIRCHNERIELLA	--	-	--	-	--	-	100	3	--	-
....OOCYSTIS	--	-	--	-	80	1	--	-	--	-
....SELENASTRUM	50	2	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....COELASTRUM	--	-	--	-	--	-	320	9	--	-
....SCENEDESMUS	--	-	--	-	--	-	80	2	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	50	2	28	2	240	2	260	7	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	4300#	29	120	3	--	-
..OSCILLATORIALES										
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	--	-	300	9	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

07227140 CANADIAN RIVER ABOVE NEW MEXICO-TEXAS STATE LINE, NM
(National stream-quality accounting network station)

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
24...	0820	14	2.5	118	4.3	94
NOV						
20...	1000	18	3.0	120	5.9	94
DEC						
18...	1340	8.7	13.0	64	1.5	78
JAN						
13...	0930	E12	1.0	44	1.4	84
FEB						
19...	0850	2.0	4.5	35	.19	89
MAR						
19...	0915	11	7.0	273	8.1	100
MAY						
14...	1130	3.7	21.5	22	.22	38
JUN						
03...	1130	34	23.0	431	40	99
JUL						
15...	1030	114	24.0	6100	1880	97
SEP						
16...	1245	294	17.0	422	335	89

08251500 RIO GRANDE NEAR LOBATOS, CO

LOCATION.--Lat 37°04'42", long 105°45'22", in sec.22, T.33 N., R.11 E., Conejos County, Hydrologic Unit 13010002, 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 mi^2 (19,900 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in northern part of San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1899 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.

REVISED RECORDS.--WSP 210: Drainage area. WSP 1312: 1919 (monthly runoff).

GAGE.--Water-stage recorder. Datum of gage is 7,427.63 ft (2,263.942 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 8, 1910, nonrecording gages at same site and datum.

REMARKS.--Water-discharge records good except those for winter period, 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.

AVERAGE DISCHARGE.--31 years (water years 1900-30), 846 ft^3/s (23.96 m^3/s), 612,900 acre-ft/yr (756 hm^3/yr), includes period of extensive development for irrigation; 51 years (water years 1931-81), 411 ft^3/s (11.64 m^3/s), 297,800 acre-ft/yr (367 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 13,200 ft^3/s (374 m^3/s) June 8, 1905, gage height, 9.1 ft (2.77 m), from rating curve extended above 8,000 ft^3/s (230 m^3/s); no flow at times in 1950-51, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1828, that of June 8, 1905.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 360 ft^3/s (10.2 m^3/s) Dec. 5; maximum gage height, 3.63 ft (1.106m) Jan. 14 (backwater from ice); minimum daily discharge, 21 ft^3/s (0.59 m^3/s) Oct. 3,6,7,10,11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	43	290	290	155	286	82	170	98	65	115	102
2	22	46	325	310	195	294	73	181	100	80	112	110
3	21	46	340	294	200	310	76	139	95	100	95	120
4	22	44	340	286	205	310	62	145	82	118	95	112
5	22	44	360	286	210	302	48	157	80	122	112	102
6	21	43	350	298	210	294	40	157	80	105	100	115
7	21	43	330	270	215	286	41	105	85	92	67	112
8	22	43	255	195	230	294	37	80	73	88	82	100
9	22	41	220	209	230	286	40	60	110	85	90	108
10	21	40	160	216	195	282	41	58	105	67	90	118
11	21	43	180	216	170	282	41	67	128	56	105	115
12	24	46	200	216	215	286	41	69	167	58	108	120
13	25	48	250	215	230	290	41	60	167	100	130	122
14	25	55	280	215	230	290	50	62	195	164	184	115
15	32	69	280	210	240	290	50	76	195	170	174	122
16	32	90	280	180	240	282	46	85	139	139	130	142
17	29	165	315	205	290	286	50	88	122	151	122	136
18	28	185	320	225	315	282	46	100	125	160	130	120
19	28	180	300	250	315	278	67	112	108	133	128	115
20	31	180	325	240	298	278	78	108	90	122	139	110
21	32	185	255	220	294	274	110	105	100	95	128	115
22	32	190	250	230	294	282	80	88	80	80	118	115
23	32	200	295	245	290	278	78	78	69	65	112	102
24	31	220	280	235	290	254	88	80	69	60	105	92
25	33	200	260	225	290	230	100	78	67	67	98	98
26	34	240	274	215	290	192	125	71	67	62	100	95
27	37	230	315	235	290	178	170	62	53	110	92	102
28	32	220	320	235	290	160	202	53	48	125	85	118
29	41	250	315	220	---	136	192	36	51	136	80	120
30	40	275	330	240	---	120	167	69	67	151	76	118
31	40	---	302	220	---	100	---	102	---	130	85	---
TOTAL	875	3704	8896	7346	6916	7992	2362	2901	3015	3256	3387	3391
MEAN	28.2	123	287	237	247	258	78.7	93.6	101	105	109	113
MAX	41	275	360	310	315	310	202	181	195	170	184	142
MIN	21	40	160	180	155	100	37	36	48	56	67	92
AC-FT	1740	7350	17650	14570	13720	15850	4690	5750	5980	6460	6720	6730

CAL YR 1980 TOTAL 227711 MEAN 622 MAX 3140 MIN 17 AC-FT 451700
WTR YR 1981 TOTAL 54041 MEAN 148 MAX 360 MIN 21 AC-FT 107200

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1975 to current year.
WATER TEMPERATURE: October 1975 to current year.
INSTRUMENTATION.--Water-quality monitor since October 1975.

REMARKS.--Replaces station 08249200 Rio Grande above Culebra Creek, near Lobatos, Colo. which was discontinued July 1969. This station operated by the Colorado District.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,140 micromhos Sept. 18, 1977; minimum daily, 84 micromhos May 9, 1979.
WATER TEMPERATURES: Maximum, 30.0°C July 17, 1977; minimum, freezing point on many days during winter period.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 709 micromhos Apr. 10; minimum daily, 167 micromhos Feb. 19.
WATER TEMPERATURES: Maximum, 27.0°C July 6; minimum, freezing point on many days during winter months.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT												
02...	1120	22	585	8.3	13.5	1.3	9.9	170	53	--	51	11
NOV												
06...	1230	43	475	8.3	12.0	2.5	11.8	150	17	--	44	8.9
DEC												
10...	1115	120	215	7.7	.5	3.4	11.2	79	0	--	25	4.0
JAN												
14...	1200	E180	230	7.2	.5	4.5	12.0	84	2	--	26	4.7
FEB												
18...	1300	E275	--	7.5	3.0	12	10.6	68	--	--	21	3.7
MAR												
24...	1100	238	250	7.7	7.0	9.4	--	87	--	12	27	4.7
APR												
06...	1400	48	--	8.7	3.0	2.7	9.6	170	--	31	52	9.9
MAY												
04...	1430	167	--	8.8	22.0	6.7	8.9	82	--	6.0	25	4.8
JUN												
09...	1030	102	--	8.9	16.5	3.2	6.2	170	--	17	51	9.6
JUL												
06...	1430	105	--	8.2	15.5	8.0	7.8	74	--	.00	23	4.0
AUG												
11...	1230	105	245	8.2	11.0	81	7.8	72	--	.00	22	4.2
SEP												
21...	1345	116	241	9.0	19.4	2.5	10.4	80	--	.00	24	4.9

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT												
02...	56	1.9	6.5	120	--	170	16	.8	22	406	406	.00
NOV												
06...	45	1.6	6.3	130	--	110	11	.8	22	326	326	.00
DEC												
10...	14	.7	3.1	--	82	27	3.3	.3	29	168	156	.28
JAN												
14...	15	.7	3.0	--	82	29	3.8	.4	32	171	164	.21
FEB												
18...	13	.7	2.6	--	61	26	3.6	.2	26	133	134	.16
MAR												
24...	17	.8	3.1	--	75	35	15	.3	27	161	175	.13
APR												
06...	51	1.7	5.6	--	140	120	14	.8	29	377	367	.09
MAY												
04...	23	1.1	4.0	--	76	44	5.5	.4	22	196	175	.00
JUN												
09...	46	1.6	6.9	--	150	100	14	.7	22	347	341	.01
JUL												
06...	19	1.0	3.9	--	80	33	4.7	.3	25	154	161	.03
AUG												
11...	20	1.1	4.4	--	100	<5.0	4.4	.2	23	166	143	.10
SEP												
21...	18	.9	4.7	--	87	30	4.9	.3	23	167	162	<.10

RIO GRANDE BASIN
08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued
WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT												
02...	.00	.010	.000	.96	.97	.020	30	10	--	7.7	--	.00
NOV												
06...	.00	.130	.130	.58	.71	.070	--	--	5.7	--	--	--
DEC												
10...	.28	.020	.000	.70	1.0	.100	--	--	3.9	--	--	--
JAN												
14...	.22	.060	.020	.71	.98	.110	--	--	5.9	--	--	--
FEB												
18...	.17	.160	.160	.22	.54	.130	--	--	--	--	--	--
MAR												
24...	.16	.080	.070	.55	.76	.150	70	30	--	5.8	--	.00
APR												
06...	.11	.060	.070	1.0	1.2	.240	--	--	8.4	--	--	--
MAY												
04...	.22	.050	.110	.82	.87	.210	--	--	10	--	--	--
JUN												
09...	.03	.090	.090	.85	.95	.510	130	80	--	36	--	.00
JUL												
06...	.04	.100	.100	1.3	1.4	.300	--	--	7.0	--	--	--
AUG												
11...	.07	.300	.170	.70	1.1	.420	210	29	--	16	--	.00
SEP												
21...	<.10	.200	.250	.54	.71	.200	--	--	--	5.1	.7	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)
OCT										
02...	1120	4	4	0	70	0	1	0	0	0
MAR										
24...	1100	2	1	0	40	0	<1	10	10	0
JUN										
09...	1030	6	6	0	100	1	<1	10	0	1
AUG										
11...	1230	3	4	100	40	1	<1	60	0	33

DATE	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)
OCT										
02...	<3	6	3	150	30	5	5	30	10	.0
MAR										
24...	<3	3	4	890	70	3	2	110	30	.0
JUN										
09...	<3	7	6	640	130	19	3	220	80	2.0
AUG										
11...	<3	10	8	4200	210	3	0	310	29	.3

DATE	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT										
02...	.0	12	3	1	0	0	0	0	20	6
MAR										
24...	.3	<10	0	1	0	0	0	0	40	30
JUN										
09...	2.0	<10	3	2	0	0	0	0	60	70
AUG										
11...	.2	--	22	14	0	0	0	0	20	27

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

WATER-QUALITY RECORDS

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
02...	1120	K4	K20
NOV			
06...	1230	K4	130
DEC			
10...	1115	K4	66
JAN			
14...	1200	K8	K40
FEB			
18...	1300	K4	56
APR			
06...	1400	<4	<4
MAY			
04...	1430	K11	K15
JUN			
09...	1030	--	K64
JUL			
06...	1430	K20	K12
SEP			
21...	1345	<4	<400

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L) (80020)
JUN										
09...	1030	<7.4	1.1	8.2	.6	7.8	.5	.05	--	2.4
SEP										
21...	1345	<3.5	<.4	4.2	.6	4.1	.6	.07	1.1	--

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 6,80		MAR 24,81		MAY 4,81		JUN 9,81	
TIME	1230		1100		1450		1030	
TOTAL CELLS/ML	2200		6600		12000		0	
DIVERSITY: DIVISION	1.8		1.0		1.3		0.0	
.CLASS	1.8		1.0		1.3		0.0	
..ORDER	2.8		2.7		2.6		0.0	
...FAMILY	3.0		3.2		2.8		0.0	
....GENUS	3.6		3.8		2.8		0.0	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)								
.BACILLARIOPHYCEAE								
..ACHNANTHALES								
...ACHNANTHACEAE								
....COCCONEIS	--	-	100	2	70	1	--	-
..BACILLARIALES								
...NITZSCHIACEAE								
....NITZSCHIA	400#	18	790	12	1900#	16	--	-
..EPITHEMIALES								
...EPITHEMIACEAE								
....EPITHEMIA	--	-	69	1	70	1	--	-
..EUPODISCALES								
...COSCINODISCACEAE								
....CYCLOTELLA	310	14	240	4	5000#	42	--	-
....MELOSIRA	--	-	--	-	--	-	--	-
....STEPHANODISCUS	390#	18	--	-	--	-	--	-
..FRAGILARIALES								
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	--	-	--	-	--	-
....DIATOMA	--	-	69	1	70	1	--	-
....FRAGILARIA	13	1	1800#	27	980	8	--	-
....HANNAEA	--	-	34	1	--	-	--	-
....SYNEDRA	--	-	340	5	--	-	--	-
..NAVICULALES								
...CYMBELLACEAE								
....AMPHORA	--	-	34	1	--	-	--	-
....CYMBELLA	--	-	34	1	--	-	--	-
...GOMPHONEMACEAE								
....GOMPHONEMA	26	1	240	4	--	-	--	-
...NAVICULACEAE								
....CALONEIS	--	-	69	1	--	-	--	-
....NAVICULA	--	-	480	7	420	3	--	-
....NEIDIUM	--	-	34	1	--	-	--	-
....PINNULARIA	--	-	34	1	--	-	--	-
..RHIZOSOLENIALES								
...RHIZOSOLENIACEAE								
....RHIZOSOLENIA	--	-	--	-	--	-	--	-
..SURIRELLALES								
...SURIRELLACEAE								
....CYMATOPLEURA	--	-	34	1	--	-	--	-
....SURIRELLA	--	-	170	3	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 6,80		MAR 24,81		MAY 4,81		JUN 9,81	
TIME	1230		1100		1450		1030	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHLOROCOCCACEAE								
....TETRAEDRON	--	-	--	-	--	-	--	-
...COCCOMYXACEAE								
....ELAKATOTHRIX	--	-	--	-	--	-	--	-
...DICTYOSPHAERIACEAE								
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	270	4	--	-	--	-
...MICRACTINIACEAE								
....GOLENKINIA	13	1	--	-	--	-	--	-
....MICRACTINIUM	65	3	170	3	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	52	2	34	1	140	1	--	-
....CHODATELLA	--	-	--	-	--	-	--	-
....FRANCEIA	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-
....OOCYSTIS	13	1	69	1	--	-	--	-
....QUADRIGULA	--	-	--	-	--	-	--	-
....SELENASTRUM	52	2	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	--	-
....COELASTRUM	--	-	--	-	--	-	--	-
....CRUCIGENIA	--	-	--	-	--	-	--	-
....GLOEOACTINIUM	--	-	--	-	140	1	--	-
....SCENEDESMUS	91	4	480	7	280	2	--	-
....TETRASTRUM	--	-	270	4	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CARTERIA	39	2	--	-	--	-	--	-
....CHLAMYDOMONAS	100	5	410	6	700	6	--	-
....CHLOROGONIUM	26	1	--	-	--	-	--	-
...PHACOTACEAE								
....COCCOMONAS	--	-	--	-	--	-	--	-
....PTEROMONAS	--	-	100	2	--	-	--	-
...SPONDYLOMORACEAE								
....SPONDYLOMORUM	--	-	--	-	1100	9	--	-
CHRYSOPHYTA								
.XANTHOPHYCEAE								
..MISCHOCOCCALES								
...SCIADACEAE								
....OPHIOCYTIUM	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	39	2	--	-	280	2	--	-
...CRYPTOMONADACEAE								
....CRYPTOMONAS	78	4	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	230	11	--	-	770	6	--	-
..NOSTOCALES								
...NOSTOCACEAE								
....ANABAENA	130	6	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	26	1	--	-	--	-	--	-
....TRACHELOMONAS	78	4	210	3	140	1	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
IDENTIFICATION OF PHYTOPLANKTON

DATE	JUL 6,81	AUG 11,81	SEP 21,81
TIME	1430	1230	1345
TOTAL CELLS/ML	110000	58000	9500
DIVERSITY: DIVISION	1.0	1.2	1.4
.CLASS	1.0	1.2	1.4
..ORDER	1.4	1.7	1.8
...FAMILY	2.7	2.5	2.2
....GENUS	3.3	3.4	2.8

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)						
.BACILLARIOPHYCEAE						
..ACHNANTHALES						
...ACHNANTHACEAE						
....COCCONEIS	*	0	*	0	--	-
..BACILLARIALES						
...NITZSCHIACEAE						
....NITZSCHIA	22000#	20	4700	8	180	2
..EPITHEMIALES						
...EPITHEMIACEAE						
....EPITHEMIA	*	0	*	0	*	0
..EUPODISCALES						
...COSCINODISCACEAE						
....CYCLOTELLA	6400	6	4700	8	1100	12
....MELOSIRA	--	-	860	1	61	1
....STEPHANODISCUS	--	-	--	-	--	-
..FRAGILARIALES						
...FRAGILARIACEAE						
....ASTERIONELLA	1200	1	--	-	--	-
....DIATOMA	--	-	--	-	--	-
....FRAGILARIA	--	-	1500	3	340	4
....HANNAEA	--	-	--	-	--	-
....SYNEDRA	580	1	*	0	61	1
..NAVICULALES						
...CYMBELLACEAE						
....AMPHORA	--	-	--	-	--	-
....CYMBELLA	--	-	--	-	--	-
...GOMPHONEMACEAE						
....GOMPHONEMA	--	-	--	-	--	-
...NAVICULACEAE						
....CALONEIS	--	-	*	0	--	-
....NAVICULA	*	0	1500	3	--	-
....NEIDIUM	--	-	--	-	--	-
....PINNULARIA	--	-	--	-	--	-
..RHIZOSOLENIALES						
...RHIZOSOLENIACEAE						
....RHIZOSOLENIA	--	-	--	-	*	0
..SURIRELLALES						
...SURIRELLACEAE						
....CYMATOPLEURA	--	-	*	0	--	-
....SURIRELLA	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
IDENTIFICATION OF PHYTOPLANKTON

DATE	JUL 6,81		AUG 11,81		SEP 21,81	
TIME	1430		1230		1345	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHLOROCOCCACEAE						
....TETRAEDRON	*	0	--	-	61	1
...COCCOMYXACEAE						
....ELAKATOTHRIX	1500	1	--	-	--	-
...DICTYOSPHAERIACEAE						
....DICTYOSPHAERIUM	5800	5	--	-	--	-
...HYDRODICTYACEAE						
....PEDIASTRUM	--	-	5200	9	460	5
...MICRACTINIACEAE						
....GOLENKINIA	--	-	--	-	--	-
....MICRACTINIUM	33000#	30	1700	3	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	2000	2	640	1	120	1
....CHODATELLA	--	-	*	0	--	-
....FRANCEIA	--	-	*	0	--	-
....KIRCHNERIELLA	1200	1	--	-	*	0
....OOCYSTIS	5800	5	--	-	--	-
....QUADRIGULA	--	-	1100	2	--	-
....SELENASTRUM	--	-	--	-	*	0
....TREUBARIA	580	1	--	-	--	-
...SCENEDESMACEAE						
....ACTINASTRUM	13000	12	5200	9	--	-
....COELASTRUM	2300	2	--	-	240	3
....CRUCIGENIA	1200	1	--	-	--	-
....GLOEOACTINIUM	--	-	4300	7	120	1
....SCENEDESMUS	4700	4	19000#	33	3700#	39
....TETRASTRUM	3500	3	1700	3	730	8
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CARTERIA	--	-	--	-	--	-
....CHLAMYDOMONAS	1200	1	*	0	180	2
....CHLOROGONIUM	--	-	--	-	--	-
...PHACOTACEAE						
....COCCOMONAS	--	-	--	-	*	0
....PTEROMONAS	--	-	--	-	--	-
...SPONDYLOMORACEAE						
....SPONDYLOMORUM	--	-	--	-	--	-
CHRYSOPHYTA						
.XANTHOPHYCEAE						
..MISCHOCOCCALES						
...SCIADACEAE						
....OPHIOCYTIUM	*	0	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
....CHROOMONAS	--	-	*	0	--	-
...CRYPTOMONADACEAE						
....CRYPTOMONAS	*	0	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....ANACYSTIS	1200	1	4100	7	1900#	20
..NOSTOCALES						
...NOSTOCACEAE						
....ANABAENA	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	--	-	--	-	--	-
....TRACHELOMONAS	*	0	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
06...	1230	43	12.0	8	.93	--
DEC						
10...	1115	120	.5	27	8.7	--
MAR						
24...	1100	238	7.0	39	25	84
APR						
06...	1415	48	--	414	54	11
MAY						
04...	1430	167	22.0	28	13	--
JUN						
09...	1030	102	16.5	15	4.1	85
JUL						
06...	1410	105	--	20	5.7	99
AUG						
11...	1230	105	11.0	177	50	87
SEP						
21...	1345	116	19.4	11	3.4	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.°C), RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	572	543	556	529	519	523	211	200	202	211	194	201
2	595	568	578	529	508	516	203	199	200	216	199	206
3	592	562	582	508	489	496	205	198	200	217	197	205
4	585	554	573	489	475	481	210	197	200	219	196	207
5	576	541	563	480	468	475	205	196	199	218	200	207
6	590	562	575	483	473	480	205	197	202	214	199	205
7	590	552	574	486	472	480	222	202	208	223	198	209
8	585	562	576	488	476	484	202	196	198	227	199	210
9	578	539	562	487	482	486	200	195	197	233	219	225
10	567	541	559	488	483	486	214	196	204	236	223	231
11	572	550	560	486	477	483	227	212	218	246	224	237
12	574	552	563	495	480	487	241	227	234	244	203	228
13	567	542	555	496	474	481	243	227	234	---	---	---
14	556	530	544	480	458	469	229	213	219	---	---	---
15	550	510	530	504	461	476	214	204	209	---	---	---
16	524	514	521	455	324	400	212	191	204	---	---	---
17	532	516	524	364	236	308	206	191	196	---	---	---
18	532	500	514	251	213	232	208	191	196	---	---	---
19	520	503	511	242	217	228	201	191	194	---	---	---
20	532	511	521	235	221	229	203	191	194	---	---	---
21	530	509	520	244	233	239	203	192	198	---	---	---
22	520	509	515	249	234	243	211	192	200	---	---	---
23	516	496	505	250	229	243	209	192	203	---	---	---
24	524	498	507	244	225	234	210	192	198	---	---	---
25	518	498	511	240	231	236	214	192	201	---	---	---
26	515	507	512	238	219	226	215	193	203	---	---	---
27	511	476	494	224	212	219	217	197	206	---	---	---
28	517	466	488	231	214	223	210	194	200	---	---	---
29	500	481	494	227	212	220	209	193	200	---	---	---
30	515	492	500	224	201	215	206	193	197	---	---	---
31	523	492	509	---	---	---	208	194	198	---	---	---
MONTH	595	466	535	529	201	367	243	191	204	246	194	214

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.°C), RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	231	191	210	592	572	577	267	213	235
2	---	---	---	231	211	221	638	617	630	233	194	207
3	---	---	---	224	211	219	681	651	671	243	193	213
4	---	---	---	231	211	217	702	662	684	300	241	269
5	---	---	---	232	218	226	697	305	480	291	272	280
6	---	---	---	232	211	227	574	562	570	494	282	357
7	---	---	---	233	230	232	650	573	603	459	317	347
8	---	---	---	239	230	234	672	651	661	470	349	413
9	---	---	---	239	230	233	691	666	685	552	483	514
10	---	---	---	241	229	235	709	688	699	601	551	574
11	---	---	---	241	229	236	703	647	665	641	612	630
12	---	---	---	242	229	237	662	635	649	656	544	601
13	---	---	---	248	239	242	660	620	637	556	513	539
14	---	---	---	248	229	239	632	580	616	559	518	541
15	---	---	---	248	229	239	631	609	624	559	499	530
16	---	---	---	251	230	241	630	600	613	523	401	453
17	---	---	---	281	229	240	655	605	632	403	362	383
18	176	175	176	246	228	239	646	604	626	382	340	362
19	183	167	176	248	230	241	622	581	609	373	344	359
20	187	169	177	330	228	239	570	380	474	354	323	336
21	188	179	183	251	230	243	421	370	394	347	326	339
22	185	175	179	255	247	249	360	307	326	340	326	331
23	186	177	180	250	228	247	398	338	377	329	309	318
24	195	184	189	261	250	253	405	353	383	332	310	319
25	205	194	199	293	261	272	364	323	346	334	311	320
26	214	192	204	338	316	323	332	300	317	343	333	336
27	214	193	207	382	368	377	292	218	254	348	336	344
28	221	193	206	411	320	323	242	211	221	358	338	347
29	---	---	---	455	426	440	230	201	211	360	338	347
30	---	---	---	507	478	492	243	198	219	530	341	396
31	---	---	---	549	530	538	---	---	---	523	333	377
MONTH	221	167	189	549	191	271	709	198	515	656	193	384

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	365	343	353	399	359	380	229	215	223	262	223	243
2	463	365	415	369	356	362	238	215	229	243	205	222
3	458	409	439	361	314	342	245	212	229	218	196	208
4	499	448	472	314	273	298	235	215	226	237	187	211
5	518	500	571	279	237	259	247	216	235	229	187	209
6	514	502	510	237	222	230	257	227	245	249	207	226
7	541	494	510	244	231	240	254	226	242	248	205	226
8	552	494	524	260	241	246	242	227	235	246	200	227
9	555	506	530	274	254	266	252	233	240	258	220	242
10	505	423	452	293	270	280	246	215	236	269	218	244
11	476	405	420	313	289	305	235	203	230	262	209	236
12	476	357	414	341	280	321	256	232	244	249	179	225
13	361	302	324	330	318	321	262	232	245	261	200	225
14	353	293	300	323	200	258	235	204	217	260	213	233
15	289	246	259	212	183	196	213	186	199	253	218	233
16	287	244	265	228	199	207	217	205	209	254	213	237
17	320	282	306	236	218	225	236	217	227	241	199	213
18	337	318	328	231	208	216	249	235	246	272	203	233
19	337	314	323	229	208	219	249	227	235	274	235	256
20	355	333	346	231	218	222	231	218	224	255	233	246
21	408	359	383	240	227	233	226	206	214	259	232	245
22	405	375	391	256	238	245	220	201	210	283	215	241
23	404	372	389	278	257	266	232	218	225	251	202	231
24	400	368	386	288	260	278	242	230	237	261	211	237
25	399	378	391	301	281	293	262	239	247	274	234	257
26	397	384	391	320	287	302	273	250	261	291	243	274
27	401	353	381	315	279	302	263	223	243	280	240	260
28	377	350	365	296	206	251	250	230	237	281	230	252
29	387	354	373	218	176	200	253	234	244	272	221	245
30	400	350	383	218	176	198	265	225	246	258	230	242
31	---	---	---	209	178	197	255	232	242	---	---	---
MONTH	555	244	396	399	176	263	273	186	233	291	179	236
YEAR	709	167	330									

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

WATER-QUALITY RECORDS

WATER TEMPERATURE (DEG.°C), RECORDER MAXIMUM, AND MEAN, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.5	9.0	15.0	13.0	2.0	7.0	1.5	.0	.0	2.5	.5	1.0
2	21.0	9.5	13.5	13.5	2.0	7.0	.5	.0	.0	3.0	.5	1.0
3	20.5	7.5	13.0	12.5	2.0	6.5	1.0	.0	.5	3.0	.5	1.0
4	20.5	7.5	13.0	13.0	2.0	7.0	1.5	.0	.5	2.5	.5	1.0
5	20.0	7.0	12.5	14.0	2.5	8.0	1.5	.0	.5	3.0	.5	1.0
6	19.5	7.5	13.0	13.5	3.0	8.0	1.5	.5	1.0	3.0	.5	1.0
7	20.0	8.5	13.5	13.0	2.0	7.0	3.5	.5	1.5	2.0	.5	1.0
8	19.5	8.0	13.0	11.0	3.0	6.5	1.5	.5	.5	1.5	.5	1.0
9	19.5	8.0	13.0	11.5	2.0	6.5	1.0	.5	.5	2.0	.5	1.0
10	16.5	7.0	11.0	12.0	2.0	6.5	1.5	.5	1.0	1.5	.5	1.0
11	16.5	5.5	10.5	12.5	1.5	6.5	1.5	.5	1.0	2.0	.5	1.0
12	17.0	7.0	11.5	10.5	3.0	6.5	1.5	1.0	1.0	5.0	.5	1.5
13	15.5	8.0	11.0	10.0	4.5	6.5	1.5	1.0	1.0	---	---	---
14	11.5	7.0	9.0	7.0	1.0	4.0	1.5	.5	1.0	---	---	---
15	9.5	3.5	7.0	4.0	.0	1.5	1.5	.5	1.0	---	---	---
16	9.0	1.5	4.5	2.0	.0	.5	2.0	.5	1.0	---	---	---
17	9.5	.0	4.0	1.0	.0	.0	2.5	.5	1.0	---	---	---
18	12.5	1.0	6.0	1.0	.0	.0	2.5	.5	1.0	---	---	---
19	13.5	2.0	7.0	1.5	.0	.0	1.5	.5	1.0	---	---	---
20	14.0	2.0	7.5	1.0	.0	.0	1.0	.5	.5	---	---	---
21	14.5	2.0	8.0	1.0	.0	.0	2.0	.5	1.0	---	---	---
22	14.0	2.5	8.0	.5	.0	.0	2.0	.5	1.0	---	---	---
23	12.0	2.0	6.0	.5	.0	.0	2.5	.5	1.0	---	---	---
24	12.0	1.0	5.5	.5	.0	.0	2.0	.5	1.0	---	---	---
25	13.0	1.5	5.5	.5	.0	.0	3.0	.5	1.0	---	---	---
26	6.5	1.0	3.5	.5	.0	.0	3.0	.5	1.0	---	---	---
27	7.0	.0	2.5	1.0	.0	.0	3.0	.5	1.0	---	---	---
28	10.0	.0	4.0	1.0	.0	.5	2.0	.5	1.0	---	---	---
29	11.0	1.0	5.0	1.5	.0	.5	2.5	.5	1.0	---	---	---
30	12.5	1.0	6.0	1.5	.0	.0	2.0	.5	1.0	---	---	---
31	13.5	1.5	7.0	---	---	---	2.5	.5	1.0	---	---	---
MONTH	22.5	.0	8.5	14.0	.0	3.0	3.5	.0	1.0	5.0	.5	1.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	8.0	2.5	5.0	9.0	.5	3.5	20.0	13.0	15.5
2	---	---	---	7.5	3.0	5.0	7.5	.0	3.0	20.5	13.5	16.0
3	---	---	---	7.0	3.5	5.0	4.5	.0	1.0	21.0	14.5	16.5
4	---	---	---	7.5	2.5	4.5	3.0	.0	.0	22.0	14.0	16.5
5	---	---	---	10.0	3.0	6.0	7.0	.0	1.0	19.5	12.5	14.5
6	---	---	---	5.5	2.5	4.0	8.0	.0	2.0	18.0	10.5	14.0
7	---	---	---	6.5	1.5	3.5	3.0	1.0	1.5	18.0	9.0	13.0
8	---	---	---	9.5	2.5	5.0	4.0	1.5	2.0	16.5	7.0	11.0
9	---	---	---	9.5	2.5	5.5	6.5	2.0	3.0	19.0	5.5	11.5
10	---	---	---	8.0	3.5	5.5	7.5	2.5	3.5	19.5	7.5	12.5
11	---	---	---	7.0	3.5	5.0	8.0	3.0	4.0	17.0	9.0	12.5
12	---	---	---	9.5	2.5	6.0	7.0	3.5	4.0	15.0	8.5	12.0
13	---	---	---	11.0	3.5	6.5	11.5	4.0	5.5	22.0	10.0	15.0
14	---	---	---	7.5	3.5	5.5	7.0	4.5	5.0	18.5	9.5	14.0
15	---	---	---	11.0	3.5	6.5	8.0	5.0	5.5	15.0	11.0	12.5
16	---	---	---	10.5	3.5	7.0	14.5	5.5	8.0	16.5	8.5	11.5
17	---	---	---	7.0	2.5	4.5	17.5	6.0	10.0	14.0	7.0	10.5
18	3.5	.0	2.5	8.5	1.5	4.5	14.0	6.5	8.5	21.0	8.0	14.0
19	6.0	.5	3.0	10.0	2.5	6.0	13.5	7.0	8.5	19.0	10.0	14.0
20	7.5	1.5	4.0	8.5	3.5	5.5	13.0	7.5	9.0	17.0	10.5	13.0
21	6.0	1.0	3.5	6.5	1.5	3.5	13.5	8.0	9.5	18.0	9.5	13.0
22	5.5	.5	2.5	10.0	1.5	5.0	16.5	8.5	10.5	20.0	9.0	14.0
23	7.0	.5	3.5	12.0	4.0	7.5	19.0	9.0	12.0	20.5	10.5	15.5
24	8.0	1.5	4.5	9.5	4.5	7.0	20.5	9.5	13.5	19.0	11.5	15.5
25	8.0	1.0	4.5	11.0	3.0	6.0	21.0	10.0	14.0	21.0	10.5	16.0
26	7.0	1.5	4.0	10.0	3.0	6.0	18.5	10.5	13.5	20.5	11.5	16.0
27	5.0	1.5	3.0	7.0	2.5	4.5	19.0	11.0	14.0	22.0	12.5	17.0
28	6.5	.5	3.5	7.5	2.0	4.0	19.5	11.5	14.0	21.0	13.0	15.5
29	---	---	---	10.5	1.5	5.0	20.0	12.0	15.5	20.5	10.5	14.5
30	---	---	---	8.5	1.5	3.5	23.5	12.5	17.0	24.0	11.5	17.0
31	---	---	---	8.0	1.0	3.0	---	---	---	23.0	13.0	17.0
MONTH	8.0	.0	3.5	12.0	1.0	5.0	23.5	.0	7.5	24.0	5.5	14.0

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

WATER-QUALITY RECORDS

WATER TEMPERATURE (DEG.°C), RECORDER MAXIMUM, AND MEAN, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	22.5	13.5	16.5	15.0	8.5	11.0	15.0	10.0	12.0	22.0	12.0	16.5
2	25.0	12.5	18.0	17.5	8.0	12.0	18.0	8.5	12.5	22.0	12.0	16.5
3	19.0	14.0	16.0	18.0	9.0	13.0	18.0	9.5	13.5	20.0	13.5	16.0
4	24.5	12.5	18.0	18.0	8.5	12.5	19.0	9.0	13.0	19.5	12.5	15.5
5	25.0	14.5	18.5	17.5	8.0	12.0	17.5	8.0	12.5	19.0	13.0	15.5
6	27.0	16.0	20.5	17.5	7.5	11.5	19.0	10.0	13.5	20.0	11.5	15.5
7	24.5	15.0	19.0	15.5	6.5	10.0	17.5	9.5	12.5	20.0	14.0	16.5
8	23.5	14.5	18.5	16.5	6.0	10.5	17.5	7.5	11.5	19.5	13.5	16.0
9	24.0	14.0	18.0	16.0	7.5	11.0	13.0	8.0	10.0	23.0	13.5	17.5
10	24.5	14.0	18.5	14.5	6.5	10.5	14.5	7.0	10.0	22.0	15.0	18.0
11	23.0	14.0	18.0	15.0	7.5	11.0	14.0	7.5	10.0	22.0	14.0	17.0
12	21.5	13.5	17.0	15.0	7.0	10.5	15.5	8.5	11.0	21.5	14.0	17.0
13	19.5	11.0	15.0	16.0	6.5	10.5	14.5	8.5	11.5	22.5	14.0	17.5
14	17.0	11.0	13.5	15.0	8.5	10.5	16.5	9.0	12.5	23.5	14.0	18.0
15	18.5	8.5	13.0	14.5	7.5	10.0	16.0	12.0	13.5	23.5	15.5	18.5
16	19.0	9.5	13.5	16.5	8.0	11.5	17.5	10.5	13.5	23.5	16.0	19.0
17	18.0	8.0	12.5	15.0	9.5	12.0	17.5	9.5	12.5	23.5	15.0	18.5
18	18.0	9.0	13.0	15.5	8.5	11.5	19.0	9.5	13.5	23.5	15.5	19.0
19	19.5	8.0	13.5	18.0	8.0	12.0	19.0	10.5	14.5	24.0	15.5	19.0
20	20.5	10.0	14.5	18.5	6.5	12.0	20.0	11.5	15.0	24.0	14.5	19.0
21	21.5	10.0	15.0	18.5	8.0	12.5	20.0	12.5	15.5	19.5	8.5	14.5
22	21.5	10.5	15.5	16.0	7.5	11.0	18.0	11.5	14.0	12.5	6.5	9.5
23	18.5	11.0	14.5	14.0	7.0	10.0	20.0	10.0	14.5	13.5	6.5	9.5
24	18.5	10.0	14.0	17.0	6.5	11.5	18.5	11.0	14.5	15.0	7.5	10.5
25	19.5	10.0	14.0	15.0	7.0	10.5	21.0	11.0	15.5	14.0	6.5	10.0
26	19.5	9.0	13.5	11.5	7.0	8.5	21.5	12.0	15.5	16.5	7.0	10.5
27	18.5	9.5	13.0	15.5	6.0	10.5	19.0	12.0	15.0	16.5	6.5	11.0
28	16.0	8.5	12.0	17.5	8.5	12.5	20.0	11.0	15.0	16.5	8.5	12.0
29	15.5	9.5	12.5	18.0	8.5	12.5	21.5	11.5	16.0	15.5	9.5	12.5
30	20.0	8.5	13.0	16.5	8.0	12.0	21.5	12.0	16.0	13.5	10.0	12.0
31	---	---	---	17.5	8.0	12.0	20.5	13.0	16.0	---	---	---
MONTH	27.0	8.0	15.5	18.5	6.0	11.5	21.5	7.0	13.5	24.0	6.5	15.5
YEAR	27.0	.0	9.0									

08252000 RIO GRANDE AT COLORADO-NEW MEXICO STATE LINE

LOCATION.--Lat 37°00'03", long 105°43'19", Costilla County, Hydrologic Unit 13010002, 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).
DRAINAGE AREA.--7,890 mi^2 (20,440 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in northern part of San Luis Valley, CO.
PERIOD OF RECORD.--October 1953 to current year.
REVISED RECORDS.--WSP 1732: 1954(M).
GAGE.--Water-stage recorder. Altitude of gage is 7,390 ft (2,252 m), from topographic map.
REMARKS.--Records good except those for winter period, 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. Several observations of water temperature were made during the year.
COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.
AVERAGE DISCHARGE.--28 years, 344 ft^3/s (9.742 m^3/s), 249,200 acre-ft/yr (307 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 5,000 ft^3/s (142 m^3/s) June 10, 1979, gage height, 7.77 ft (2.368 m); no flow at times in 1956.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 8, 1905, which reached a daily discharge of 13,100 ft^3/s (371 m^3/s) at station near Lobatos, 5.8 mi (9.3 km) upstream, was probably the greatest since at least 1828, based on information from area residents.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 421 ft^3/s (11.9 m^3/s) Dec. 6, gage height, 2.69 ft (0.820 m); maximum gage height, 3.36 ft (1.024 m) Jan. 23 (backwater from ice); minimum daily discharge, 21 ft^3/s (0.59 m^3/s) Oct. 3-6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	42	285	295	175	274	99	138	99	64	115	97
2	22	44	315	305	185	277	88	155	92	61	108	106
3	21	46	335	295	200	305	84	130	97	84	99	112
4	21	44	345	290	205	308	84	120	86	90	88	125
5	21	44	345	285	210	302	66	143	78	110	101	106
6	21	46	349	295	210	289	52	135	76	95	103	108
7	22	47	349	275	215	280	47	103	82	86	82	118
8	23	46	275	215	225	286	44	76	72	80	78	106
9	24	47	230	205	230	283	42	63	90	78	90	106
10	24	47	166	215	210	274	50	55	106	68	92	118
11	22	48	175	215	180	277	46	55	106	61	101	120
12	23	52	195	215	210	280	47	66	149	63	99	120
13	25	54	230	215	225	286	46	61	152	72	115	130
14	27	55	275	215	230	289	46	57	163	135	155	120
15	30	76	280	210	240	289	48	68	204	166	180	120
16	33	85	280	185	240	286	46	80	138	141	138	138
17	29	145	305	200	280	283	48	82	115	132	130	143
18	29	180	320	220	310	286	47	90	112	149	128	130
19	30	180	305	245	315	283	48	106	101	130	128	120
20	33	180	320	240	310	277	84	103	84	120	132	115
21	34	185	275	225	305	280	88	103	82	97	132	112
22	35	185	252	225	295	283	90	92	80	82	120	118
23	35	190	285	240	286	283	72	84	66	72	115	108
24	36	215	285	235	283	261	74	84	61	64	103	97
25	36	205	265	230	283	246	84	84	61	64	99	92
26	38	235	270	220	277	201	95	80	61	64	97	92
27	40	235	305	230	286	183	138	68	54	88	97	95
28	42	225	320	235	280	180	172	64	46	122	90	103
29	35	240	315	225	---	157	169	48	48	125	86	112
30	42	270	325	235	---	130	149	52	54	143	82	112
31	41	---	310	225	---	120	---	101	---	132	82	---
TOTAL	917	3693	8886	7360	6900	8038	2293	2746	2815	3038	3365	3399
MEAN	29.6	123	287	237	246	259	76.4	88.6	93.8	98.0	109	113
MAX	42	270	349	305	315	308	172	155	204	166	180	143
MIN	21	42	166	185	175	120	42	48	46	61	78	92
AC-FT	1820	7330	17630	14600	13690	15940	4550	5450	5580	6030	6670	6740

CAL YR 1980 TOTAL 223646 MEAN 611 MAX 3040 MIN 16 AC-FT 443600
WTR YR 1981 TOTAL 53450 MEAN 146 MAX 349 MIN 21 AC-FT 106000

08252500 COSTILLA CREEK ABOVE COSTILLA DAM, NM

LOCATION.--Lat 36°53'52", long 105°15'16", Taos County, Hydrologic Unit 13020101, 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 mi^2 (65.0 km^2).

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."

REVISED RECORDS.--WSP 878: 1937. WSP 1923: 1937-50, drainage area.

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.

REMARKS.--Records good. Natural flow may be augmented by transbasin diversions or irrigation returns from about 1,300 acres (5.3 km^2) irrigated from Casias Creek (station 08253000). Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,870 ft^3/s (110 m^3/s) July 22, 1954, gage height, about 4.8 ft (1.46 m), from floodmarks, site and datum them in use, on basis of slope-area measurement of peak flow; minimum not determined.

The flood in 1954 destroyed the gaging station and is highest since about 1909, from information by local range rider.

A portion of this flow may have originated in Casias Creek basin (see REMARKS).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 26 ft^3/s (0.74 m^3/s) Aug. 27, gage height, 2.44 ft (0.744 m), no peak above base of 40 ft^3/s (1.1 m^3/s); minimum not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3						---	8.3	13	4.3	2.8	4.3
2	2.3						---	8.2	10	3.6	3.2	3.9
3	2.4						---	9.0	12	7.7	3.4	4.2
4	2.4						---	7.5	12	4.1	3.0	4.5
5	2.4						---	7.3	11	3.4	3.6	4.5
6	2.5						---	8.4	11	2.9	3.1	4.0
7	2.4						---	7.0	9.7	5.0	3.0	10
8	2.4						---	5.4	9.1	5.2	3.3	5.9
9	---						---	6.2	8.8	3.3	5.7	5.9
10	---						---	6.2	8.6	4.3	7.9	9.9
11	---						---	5.4	8.1	4.4	14	7.5
12	---						---	4.7	7.4	5.6	13	6.9
13	---						---	5.5	6.6	5.0	6.9	7.8
14	---						---	5.0	6.0	6.1	5.9	6.5
15	---						---	4.8	5.6	6.1	6.2	5.5
16	---						---	5.8	5.2	4.9	7.9	5.8
17	---						7.7	5.9	4.7	7.2	7.9	5.3
18	---						6.8	7.7	4.3	5.6	6.5	4.8
19	---						6.7	7.2	3.9	4.7	4.9	4.5
20	---						6.9	6.2	3.6	3.8	4.4	4.3
21	---						6.6	6.2	3.3	3.4	5.0	4.1
22	---						6.4	5.1	3.1	3.2	5.4	4.1
23	---						6.2	5.2	3.1	4.3	5.5	4.2
24	---						7.1	6.0	3.3	3.8	4.1	4.1
25	---						7.8	5.2	3.1	3.2	3.8	3.9
26	---						7.8	5.0	2.9	4.8	4.5	3.5
27	---						7.5	4.7	3.0	6.0	8.1	3.6
28	---						7.2	5.2	3.2	3.3	8.7	3.5
29	---						7.1	8.2	5.4	3.0	5.1	3.5
30	---						7.4	13	5.2	3.0	4.6	3.6
31	---						---	9.1	---	2.9	4.5	---
TOTAL	---						---	204.6	196.2	138.1	175.9	154.1
MEAN	---						---	6.60	6.54	4.45	5.67	5.14
MAX	---						---	13	13	7.7	14	10
MIN	---						---	4.7	2.9	2.9	2.8	3.5
AC-FT	---						---	406	389	274	349	306

08253000 CASIAS CREEK NEAR COSTILLA, NM

LOCATION.--Lat 36°53'48", long 105°15'35", Taos County, Hydrologic Unit 13020101, 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 mi^2 (43.0 km^2).
PERIOD OF RECORD.--April 1937 to current year (no winter records). Monthly discharge only for some periods, published in WSP 1312 and 1732. Records for Nov. 1-7, 1947, and Nov. 1-16, 1948, published in WSP 1118 and 1148, are unreliable and should not be used.
REVISED RECORDS.--WSP 1282: 1948-51. WSP 1923: Drainage area. See also PERIOD OF RECORD.
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.
REMARKS.--Records good. Diversion 3.5 mi (5.6 km) upstream for irrigation of about 1,300 acres (5.3 km^2), part of which is in Costilla Creek basin. Several observations of water temperature were made during the year.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 181 ft^3/s (5.13 m^3/s) July 20, 1971, gage height, 2.07 ft (0.631 m), from rating curve extended above 85 ft^3/s (2.4 m^3/s); minimum not determined.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 37 ft^3/s (1.05 m^3/s) at 1930 hours Aug. 11, gage height, 1.07 ft (0.326 m), no other peak above base of 35 ft^3/s (1.0 m^3/s); minimum not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8						---	12	18	13	7.6	8.5
2	4.1						---	13	16	12	7.9	8.0
3	4.1						---	15	19	13	8.0	8.8
4	4.0						---	14	19	11	7.5	8.8
5	4.0						---	14	18	10	10	8.8
6	3.9						---	13	19	9.4	7.9	8.4
7	4.0						---	12	21	11	8.0	13
8	---						---	10	22	10	8.2	10
9	---						---	11	23	9.3	9.7	10
10	---						---	9.9	24	10	11	14
11	---						---	9.1	24	11	20	11
12	---						---	8.5	24	12	18	11
13	---						---	9.3	23	11	12	10
14	---						---	8.4	22	11	12	8.8
15	---						---	8.8	20	10	13	8.8
16	---						---	8.8	19	9.3	14	9.7
17	---						5.2	10	18	10	17	9.5
18	---						4.8	9.8	16	9.8	14	9.1
19	---						4.8	9.3	15	9.8	12	8.4
20	---						4.9	8.8	14	8.0	11	8.0
21	---						4.9	8.4	14	7.7	12	7.7
22	---						4.7	8.0	13	7.9	13	8.0
23	---						5.0	8.4	13	8.9	12	8.0
24	---						6.5	9.3	13	8.0	10	7.7
25	---						7.3	8.4	12	7.6	9.8	7.7
26	---						8.0	8.4	10	9.7	10	6.9
27	---						8.7	8.5	9.9	8.8	13	6.9
28	---						8.8	9.5	11	8.0	12	6.9
29	---						9.3	13	15	8.0	10	6.9
30	---						10	16	15	8.0	9.3	6.9
31	---						---	14	---	7.7	9.2	---
TOTAL	---						---	326.6	519.9	300.9	349.1	266.2
MEAN	---						---	10.5	17.3	9.71	11.3	8.87
MAX	---						---	16	24	13	20	14
MIN	---						---	8.0	9.9	7.6	7.5	6.9
AC-FT	---						---	648	1030	597	692	528

08253500 SANTISTEVAN CREEK NEAR COSTILLA, NM

LOCATION.--Lat 36°53'03", long 105°16'50", Taos County, Hydrologic Unit 13020101, 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 mi^2 (5.57 km^2).
PERIOD OF RECORD.--April 1937 to current year (no winter records). Monthly discharge only for some periods, published in WSP 1312 and 1732.
REVISED RECORDS.--WSP 1923: Drainage area.
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.
REMARKS.--Records fair. No diversions above or below station. Several observations of water temperature were made during the year.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18 ft^3/s (0.51 m^3/s) Aug. 11, 1941, July 12, 1957; maximum gage height, 1.73 ft (0.527 m) Aug. 11, 1941; minimum not determined.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7.9 ft^3/s (0.22 m^3/s) at 1715 hours Aug. 21, gage height, 0.91 ft (0.277 m), no other peak above base of 6 ft^3/s (0.2 m^3/s); minimum not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.93						---	1.7	2.4	2.5	1.3	1.6
2	.92						---	1.9	2.3	2.2	1.3	1.6
3	.91						---	2.1	2.6	2.4	1.3	1.6
4	.86						---	1.9	2.7	2.1	1.3	1.7
5	.81						---	1.9	2.8	2.0	1.3	1.6
6	.81						---	1.9	2.9	1.9	1.4	1.6
7	.83						---	1.8	2.8	1.9	1.5	1.9
8	---						---	1.7	2.8	1.9	1.4	1.7
9	---						---	1.7	2.9	1.8	1.4	1.7
10	---						---	1.7	3.0	1.8	1.5	1.9
11	---						---	1.7	3.1	1.8	2.6	1.5
12	---						---	1.6	3.2	1.7	2.2	1.4
13	---						---	1.8	3.3	1.6	1.6	1.4
14	---						---	1.7	3.4	1.8	1.6	1.4
15	---						---	1.7	3.6	1.7	1.6	1.3
16	---						---	1.8	3.6	1.6	1.7	1.3
17	---						.86	1.8	3.6	1.6	1.8	1.3
18	---						.81	1.9	3.5	1.5	1.6	1.3
19	---						.92	1.8	3.4	1.5	1.5	1.3
20	---						.92	1.8	3.3	1.5	1.5	1.3
21	---						.92	1.8	3.2	1.4	2.3	1.2
22	---						.89	1.7	3.1	1.4	2.4	1.2
23	---						.89	1.8	3.0	1.6	2.1	1.2
24	---						.97	1.8	2.9	1.5	2.0	1.2
25	---						1.1	1.8	2.7	1.4	1.9	1.2
26	---						1.1	1.7	2.5	1.7	1.8	1.1
27	---						1.1	1.7	2.4	1.5	1.9	1.1
28	---						1.2	1.7	2.4	1.4	1.9	1.1
29	---						1.4	2.1	2.7	1.4	1.8	1.1
30	---						1.5	2.4	2.9	1.4	1.8	1.0
31	---						---	2.2	---	1.3	1.7	---
TOTAL	---						---	56.6	89.0	52.8	53.0	41.8
MEAN	---						---	1.83	2.97	1.70	1.71	1.39
MAX	---						---	2.4	3.6	2.5	2.6	1.9
MIN	---						---	1.6	2.3	1.3	1.3	1.0
AC-FT	---						---	112	177	105	105	83

08253900 COSTILLA RESERVOIR NEAR COSTILLA, NM

LOCATION.--Lat 36°52'32", long 105°16'45", Taos County, Hydrologic Unit 13020101, 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 mi^2 (141.4 km^2).
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.
REVISED RECORDS.--WSP 1923: Drainage area.
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.
REMARKS.--Reservoir is formed by earthfill dam faced with rock. Storage began in 1920. Capacity 15,740 acre-ft (19.4 hm^3) 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. No dead storage. By order of New Mexico State Engineer storage is limited to 14,540 acre-ft (17.9 hm^3) maximum, and 10,880 acre-ft (13.4 hm^3) for not to exceed 60 days. Diversions for irrigation of about 1,300 acres (5.26 km^2) above Reservoir. Reservoir is used for irrigation.
COOPERATION.--Gage readings were collected in cooperation with New Mexico Interstate Stream Commission.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 15,130 acre-ft (18.7 hm^3) June 13, 1938, June 20-23, 1941, gage height, 9,511.5 ft (2,899.11 m); no storage October 1925 to February 1926, September 1956, Aug. 22 to Sept. 24, 1972, July 29 to Sept. 7, 1977.
EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 7,820 acre-ft (9.64 hm^3) May 5, gage height, 9,490.1 ft (2,892.58 m); minimum observed, 842 acre-ft (1.04 hm^3) Sept. 4, gage height, 9,447.5 ft (2,879.60 m).

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

9,445	737	9,480	5,270
9,450	959	9,490	7,790
9,460	1,760	9,500	10,880
9,470	3,260		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	7650	6190	4330	---	979
2	---	---	---	---	---	---	---	---	6090	4210	2160	930
3	---	---	---	---	---	---	---	---	6000	4070	2070	887
4	---	4900	---	---	---	---	---	7790	5920	---	1930	842
5	---	---	---	---	---	---	---	7820	5830	4070	1800	---
6	---	---	---	---	---	---	---	7760	---	4010	1670	---
7	4430	---	---	---	---	---	---	7710	5830	3890	1550	878
8	---	---	---	---	---	---	---	7650	5830	3830	---	887
9	---	---	---	---	---	---	---	---	5830	3760	1580	896
10	---	---	---	---	---	---	---	7710	5830	3660	1520	910
11	---	---	---	---	---	---	---	7650	5830	---	1490	920
12	---	---	---	---	---	---	---	7570	5800	3660	1460	---
13	---	---	---	---	---	---	---	7460	---	3590	1440	---
14	---	---	---	---	---	---	---	7350	5800	3500	1420	939
15	---	---	---	---	---	---	7140	7240	5730	3370	---	944
16	---	---	---	---	---	---	---	---	5570	3260	1450	984
17	---	---	---	---	---	---	---	7240	5410	3170	1450	---
18	---	---	---	---	---	---	---	7190	5230	---	1440	---
19	---	---	---	---	---	---	---	7110	5070	3170	1410	---
20	---	---	---	---	---	---	7240	7000	---	3120	1370	---
21	---	---	---	---	---	---	7270	6900	5070	3000	1320	---
22	---	---	---	---	---	---	7270	6770	5000	2930	---	---
23	---	---	---	---	---	6490	7330	---	4920	2830	1400	---
24	---	---	---	---	---	---	7350	6770	4740	2760	1340	---
25	---	---	---	---	---	---	---	6690	4700	---	1250	---
26	---	---	---	---	---	---	---	6560	4580	2800	1170	---
27	---	---	---	---	---	---	7460	6410	---	2730	1110	---
28	---	---	---	---	6100	---	7520	6310	4580	2600	1040	---
29	---	---	---	---	---	---	7540	6190	4510	2450	---	---
30	---	5200	---	---	---	---	7600	---	4430	2300	1050	1400
31	4850	---	5500	5800	---	6700	---	6260	---	2140	1020	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---
(†)	---	---	---	---	---	---	9489.3	9484.2	9476.1	9463.0	9451.2	---
(‡)	+520	+350	+300	+300	+300	+600	+900	-1340	-1830	-2290	-1120	+380

CAL YR 1980..... ‡ -2600
WTR YR 1981..... ‡ -2930

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.
NOTE.--Contents interpolated at end of each month, October thru March and September.

08254000 COSTILLA CREEK BELOW COSTILLA DAM, NM

LOCATION.--Lat 36°52'26", long 105°16'47", Taos County, Hydrologic Unit 13020101, 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 mi^2 (141.4 km^2).
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."
REVISED RECORDS.--WSP 1923: Drainage area.
GAGE.--Water-stage recorder and concrete control. Altitude of gage is 9,290 ft (2,832 m), from topographic map.
REMARKS.--Records good except those below 1.0 ft^3/s (0.03 m^3/s), which are poor. Flow regulated by Costilla Reservoir (station 08253900). Diversions for irrigation of about 1,300 acres (5.3 km^2) above Reservoir. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--35 years (water years 1945-47, 1950-81), 16.7 ft^3/s (0.473 m^3/s), 12,100 acre-ft/yr (14.9 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 301 ft^3/s (8.52 m^3/s) June 19, 1979, gage height, 3.04 ft (0.927 m); no flow at times.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 114 ft^3/s (3.23 m^3/s) June 15,16,17, gage height, 1.99 ft (0.607 m); minimum not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.05	.04	.03	.02	.02	.02	.06	84	84	13	39
2	.05	.05	.04	.03	.02	.02	.02	.07	84	84	31	39
3	.05	.05	.04	.03	.02	.02	.02	.07	84	45	81	38
4	.05	.05	.04	.03	.02	.02	.02	.08	84	23	81	23
5	.05	.05	.04	.03	.02	.02	.02	35	52	33	79	14
6	.05	.05	.04	.03	.02	.02	.02	59	33	62	79	14
7	.05	.05	.04	.03	.02	.02	.02	59	35	62	34	17
8	.05	.05	.04	.03	.02	.02	.02	19	41	62	9.7	19
9	.05	.05	.04	.03	.02	.02	.02	.55	41	62	26	19
10	.05	.05	.04	.03	.02	.02	.02	26	41	38	71	19
11	.05	.05	.04	.03	.02	.02	.02	67	41	20	52	19
12	.05	.05	.04	.03	.02	.02	.02	67	36	34	38	19
13	.05	.05	.04	.03	.02	.02	.03	67	33	73	38	19
14	.05	.05	.04	.03	.02	.02	.04	67	49	73	24	19
15	.05	.05	.04	.03	.02	.02	.04	33	107	72	16	6.9
16	.05	.04	.04	.03	.02	.02	.02	21	112	72	22	.01
17	.05	.04	.04	.03	.02	.02	.02	38	112	38	39	.01
18	.05	.04	.04	.03	.02	.02	.02	73	112	18	39	.02
19	.05	.04	.04	.03	.02	.02	.04	73	56	29	39	.02
20	.05	.04	.04	.03	.02	.02	.04	73	23	62	39	.02
21	.05	.04	.04	.03	.02	.02	.04	73	32	61	26	.02
22	.05	.04	.04	.03	.02	.02	.05	34	73	61	19	.02
23	.05	.04	.04	.03	.02	.02	.04	21	83	61	30	.01
24	.05	.04	.04	.03	.02	.02	.04	42	81	28	59	.01
25	.05	.04	.04	.03	.02	.02	.02	80	80	9.7	58	.01
26	.05	.04	.04	.03	.02	.02	.05	80	37	30	57	.01
27	.05	.04	.04	.03	.02	.02	.05	80	14	90	57	.01
28	.05	.04	.04	.03	.02	.02	.05	79	33	90	33	.02
29	.05	.04	.04	.03	---	.02	.04	43	85	88	20	.02
30	.05	.04	.04	.03	---	.02	.05	20	85	88	26	.02
31	.05	---	.04	.03	---	.02	---	37	---	38	39	---
TOTAL	1.55	1.35	1.24	.93	.56	.62	.92	1366.83	1863	1690.7	1274.7	324.13
MEAN	.050	.045	.040	.030	.020	.020	.031	44.1	62.1	54.5	41.1	10.8
MAX	.05	.05	.04	.03	.02	.02	.05	80	112	90	81	39
MIN	.05	.04	.04	.03	.02	.02	.02	.06	14	9.7	9.7	.01
AC-FT	3.1	2.7	2.5	1.8	1.1	1.2	1.8	2710	3700	3350	2530	643

CAL YR 1980 TOTAL 9522.11 MEAN 26.0 MAX 151 MIN .04 AC-FT 18890
WTR YR 1981 TOTAL 6526.53 MEAN 17.9 MAX 112 MIN .01 AC-FT 12950

NOTE.--No gage-height record Oct. 7 to Apr. 15.

08254500 COSTILLA CREEK NEAR AMALIA, NM

LOCATION.--Lat 36°52'33", long 105°23'22", Taos County, Hydrologic Unit 13020101, 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.

REVISED RECORDS.--WSP 1732: 1956(M). WSP 1923: Drainage area.

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.

REMARKS.--Records good. Flow regulated by Costilla Reservoir (station 08253900) about 10 mi (16 km) upstream. Diversions for irrigation of about 1,300 acres (5.3 km^2) above Costilla Reservoir. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 689 ft^3/s (19.5 m^3/s) Apr. 25, 1958, gage height, 3.70 ft (1.128 m), site and datum then in use; maximum gage height, 3.26 ft (0.994 m) June 8, 1979, (backwater from debris); minimum discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 136 ft^3/s (3.85 m^3/s) July 14, gage height, 2.26 ft (0.689 m); minimum discharge not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8						---	20	86	87	22	45
2	5.6						---	24	87	84	26	43
3	5.6						---	23	91	64	80	42
4	5.5						---	20	93	34	80	35
5	5.5						---	35	73	34	84	24
6	5.6						---	65	51	64	84	22
7	5.5						---	62	49	66	55	27
8	---						---	44	53	66	25	28
9	---						---	17	53	65	26	26
10	---						---	21	52	53	78	31
11	---						---	67	52	29	87	27
12	---						---	67	49	34	72	25
13	---						---	69	44	76	61	27
14	---						---	69	48	80	49	29
15	---						---	51	103	76	37	22
16	---						19	33	110	78	39	11
17	---						20	39	110	60	61	10
18	---						19	78	110	32	61	9.4
19	---						18	78	73	29	59	8.7
20	---						19	77	32	63	56	8.2
21	---						18	76	32	63	49	7.7
22	---						17	55	68	62	40	7.6
23	---						16	32	79	64	40	7.7
24	---						16	37	79	45	66	8.5
25	---						17	80	79	18	66	8.0
26	---						17	80	53	23	63	7.3
27	---						16	80	22	91	73	6.9
28	---						16	80	26	89	54	6.9
29	---						17	64	83	89	34	6.7
30	---						17	45	88	87	33	6.9
31	---						---	41	---	56	46	---
TOTAL	---						---	1629	2028	1861	1706	574.5
MEAN	---						---	52.5	67.6	60.0	55.0	19.2
MAX	---						---	80	110	91	87	45
MIN	---						---	17	22	18	22	6.7
AC-FT	---						---	3230	4020	3690	3380	1140

08255500 COSTILLA CREEK NEAR COSTILLA, NM

LOCATION.--Lat 36°58'01", long 105°30'23", Taos County, Hydrologic Unit 13020101, 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 mi^2 (505 km^2).
PERIOD OF RECORD.--March 1936 to current year (no winter records 1936-41, 1943, corrected). Monthly discharge for March 1943 and water-year estimate for 1943, published in WSP 1312.
REVISED RECORDS.--WSP 1312: 1937-39 (M).
GAGE.--Water-stage recorder. Concrete control since Oct. 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.
REMARKS.--Records good except those for winter period, which are poor. Flow regulated by Costilla Reservoir (station 08253900) 19 mi (31 km) upstream. Diversions for irrigation of about 2,000 acres (8.1 km^2) above station. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--40 years (water years 1942-81), 41.3 ft^3/s (1.170 m^3/s), 29,920 acre-ft/yr (36.9 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,150 ft^3/s (32.6 m^3/s) May 11, 1942, gage height, 5.37 ft (1.637 m), site and datum then in use; minimum, 0.34 ft^3/s (0.010 m^3/s) Mar. 15, 1969, result of freezeup.
EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in 1886, from information by local residents.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 139 ft^3/s (3.94 m^3/s) Aug. 9, gage height, 3.00 ft (0.914 m); minimum, 1.1 ft^3/s (0.031 m^3/s) Jan. 7, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	9.9	10	6.0	5.5	9.4	13	21	80	88	30	50
2	6.5	9.7	10	6.0	4.5	7.9	16	29	88	82	26	48
3	6.6	9.7	10	6.0	4.5	9.0	16	27	102	73	67	47
4	6.7	9.7	11	6.0	5.0	7.4	13	25	105	41	77	45
5	6.4	9.7	10	6.0	5.0	8.1	10	26	90	36	77	31
6	6.4	9.6	10	5.5	5.0	9.0	14	65	62	54	78	29
7	6.6	10	10	4.3	5.0	8.0	19	66	58	60	67	33
8	6.5	9.4	9.0	5.0	5.0	7.2	20	57	58	63	31	36
9	6.2	9.3	8.0	4.6	5.0	7.8	21	27	56	62	30	41
10	6.0	8.9	7.0	5.0	4.2	8.2	24	23	54	61	69	48
11	6.2	8.9	7.0	5.0	4.5	7.8	24	58	53	38	98	37
12	6.3	9.3	7.5	4.8	5.0	7.8	23	69	51	37	88	36
13	6.5	9.9	8.0	4.8	5.5	7.3	25	72	46	65	68	35
14	6.6	11	8.0	4.8	6.0	8.1	27	70	44	74	59	38
15	13	8.0	8.0	4.8	7.0	8.5	20	63	82	78	43	33
16	14	5.8	8.0	5.0	8.0	7.4	22	40	99	80	43	20
17	11	5.0	8.0	5.5	8.5	7.8	23	40	98	76	58	17
18	10	5.0	7.5	5.5	9.2	8.1	24	70	100	44	63	16
19	9.7	5.5	6.0	5.0	10	7.9	22	76	87	37	59	15
20	10	6.0	6.5	5.0	11	8.8	24	75	42	57	57	14
21	10	6.3	6.5	4.6	9.8	8.1	23	75	35	64	51	13
22	9.9	6.7	6.5	5.0	8.4	8.5	23	67	53	63	46	13
23	9.6	7.5	7.0	5.0	8.8	9.1	22	38	68	65	42	13
24	7.9	7.8	6.5	5.5	8.5	10	22	38	69	59	63	14
25	8.7	7.7	6.0	5.0	8.4	11	23	71	71	27	67	13
26	9.5	7.5	6.0	5.0	8.9	13	23	79	62	29	67	12
27	10	7.0	6.5	5.0	8.8	15	21	79	29	79	71	11
28	9.0	7.5	7.0	5.5	8.6	18	21	79	25	87	73	11
29	9.4	8.0	6.0	5.0	---	13	21	74	69	85	41	11
30	9.3	9.0	6.0	5.5	---	14	21	53	86	85	37	11
31	10	---	6.0	6.0	---	13	---	46	---	71	49	---
TOTAL	261.3	245.3	239.5	161.7	193.6	294.2	620	1698	2022	1920	1795	791
MEAN	8.43	8.18	7.73	5.22	6.91	9.49	20.7	54.8	67.4	61.9	57.9	26.4
MAX	14	11	11	6.0	11	18	27	79	105	88	98	50
MIN	6.0	5.0	6.0	4.3	4.2	7.2	10	21	25	27	26	11
AC-FT	518	487	475	321	384	584	1230	3370	4010	3810	3560	1570

CAL YR 1980 TOTAL 20217.0 MEAN 55.2 MAX 212 MIN 5.0 AC-FT 40100
WTR YR 1981 TOTAL 10241.6 MEAN 28.1 MAX 105 MIN 4.2 AC-FT 20310

08260500 COSTILLA CREEK BELOW DIVERSION DAM, AT COSTILLA, NM

LOCATION.--Lat 36°58'03", long 105°31'00", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on right bank 600 ft (180 m) downstream from new diversion dam, 1.1 mi (1.8 km) southeast of Costilla, and at mile 15.3 (24.6 km).
DRAINAGE AREA.--197 mi^2 (510 km^2).
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.
REMARKS.--Records poor. Flow partly regulated by Costilla Reservoir (station 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 km^2), 3,000 acres (12 km^2) of which are below station. Several observations of water temperature were made during the year.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 540 ft^3/s (15.3 m^3/s) June 9, 1979, gage height, 4.66 ft (1.420 m), from rating curve extended above 220 ft^3/s (6.2 m^3/s); maximum gage height, 5.05 ft (1.539 m) July 24, 1957 (backwater from debris); no flow Oct. 14, 1963.
EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in 1886, from information by local residents. Flood of May 11, 1942, probably exceeded 1,000 ft^3/s (28 m^3/s), based on records for upstream station (station 08255500).
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 102 ft^3/s (2.89 m^3/s) July 10, gage height, 4.14 ft (1.262 m); minimum not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9						---	.31	2.1	2.8	8.6	1.1
2	1.9						---	.29	1.8	2.1	1.6	1.0
3	1.9						---	.29	3.7	3.7	1.6	1.0
4	1.9						---	.26	6.1	3.4	1.4	1.0
5	1.9						---	.21	6.1	3.7	1.3	.83
6	1.8						---	.12	5.4	3.4	1.4	.83
7	1.6						---	.10	5.1	2.4	1.0	.85
8	1.6						---	.10	3.7	2.4	.65	.83
9	---						---	.07	3.1	2.4	.50	4.0
10	---						---	.07	3.1	16	.10	1.8
11	---						---	5.7	2.8	14	9.8	19
12	---						---	6.1	17	3.1	17	17
13	---						---	4.3	13	2.4	3.1	5.0
14	---						---	4.0	7.7	2.1	2.8	5.0
15	---						.07	3.1	4.6	1.9	2.6	4.7
16	---						.07	2.8	2.8	2.1	2.3	4.2
17	---						.07	2.8	2.4	1.4	5.0	3.7
18	---						.07	1.0	1.9	.93	2.1	3.6
19	---						.07	.13	1.6	1.0	1.9	3.4
20	---						.07	.10	1.4	1.0	1.8	3.7
21	---						.63	.65	1.4	1.2	14	3.7
22	---						1.9	3.4	1.4	2.6	21	3.4
23	---						.93	15	1.2	6.1	14	3.4
24	---						3.1	11	1.0	2.4	7.5	3.5
25	---						13	5.4	.93	8.6	1.8	3.4
26	---						4.3	5.0	13	2.1	1.2	3.1
27	---						2.8	3.1	5.4	1.8	2.1	3.1
28	---						.34	3.1	2.6	.65	4.1	3.4
29	---						.31	2.9	2.6	.31	1.0	3.4
30	---						.31	2.5	2.4	.21	1.0	3.2
31	---						---	2.1	---	8.6	1.2	---
TOTAL	---						---	86.00	127.33	106.80	135.45	116.14
MEAN	---						---	2.77	4.24	3.45	4.37	3.87
MAX	---						---	15	17	16	21	19
MIN	---						---	.07	.93	.21	.10	.83
AC-FT	---						---	171	253	212	269	230

08261000 COSTILLA CREEK AT GARCIA, CO

LOCATION.--Lat 36°59'21", long 105°31'54", Taos County, Hydrologic Unit 13020101, 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 mi^2 (520 km^2), 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.
REMARKS.--Records fair. Flow partly regulated by Costilla Reservoir (station 08253900) 22 mi (35 km) upstream. Diversions above station for irrigation of about 5,500 acres (22 km^2), 2,000 acres (8.1 km^2) of which are below station. Several observations of water temperature were made during the year.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 460 ft^3/s (13.0 m^3/s) July 24, 1957, gage height, 4.76 ft (1.451 m); no flow for many days most years.
EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in 1886, from information by local residents. Flood of May 11, 1942, probably reached a discharge of 1,000 ft^3/s (28 m^3/s).
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30 ft^3/s (0.85 m^3/s) July 10, gage height, 2.92 ft (0.890 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00						---	.00	.00	.00	5.8	.00
2	.00						---	.00	.00	.00	.00	.00
3	.00						---	.00	.16	.02	.00	.00
4	.00						---	.00	1.2	.00	.00	.00
5	.00						---	.00	.95	.00	.00	.00
6	.00						---	.00	.38	.00	.00	.00
7	---						---	.00	.08	.00	.00	.00
8	---						---	.00	.00	.00	.00	.00
9	---						---	.00	.00	.00	.00	.00
10	---						---	.00	.00	5.6	.00	.33
11	---						---	.12	.00	7.6	.79	9.4
12	---						---	.01	4.8	.00	7.7	12
13	---						---	.00	2.5	.00	.17	.73
14	---						---	.00	.15	.00	.01	.57
15	---						.00	.00	.00	.00	.00	.42
16	---						.00	.00	.00	.00	.00	.25
17	---						.00	.00	.00	.00	.21	.15
18	---						.00	.00	.00	.00	.00	.12
19	---						.00	.00	.00	.00	.00	.07
20	---						.00	.00	.00	.00	.00	.03
21	---						.00	.00	.00	.00	5.1	.01
22	---						.00	.00	.00	.00	13	.00
23	---						.00	4.1	.00	.53	8.8	.01
24	---						.29	1.3	.00	.00	3.6	.04
25	---						7.2	1.3	.00	1.5	.00	.00
26	---						1.4	.34	4.4	.00	.00	.00
27	---						.79	.00	.02	.00	.03	.00
28	---						.00	.00	.00	.00	.60	.00
29	---						.00	.00	.00	.00	.00	.00
30	---						.00	.00	.00	.00	.00	.00
31	---						---	.00	---	3.4	.00	---
TOTAL	---						---	7.17	14.64	18.65	45.81	24.13
MEAN	---						---	.23	.49	.60	1.48	.80
MAX	---						---	4.1	4.8	7.6	13	12
MIN	---						---	.00	.00	.00	.00	.00
AC-FT	---						---	14	29	37	91	48

PRINCIPAL DIVERSIONS FROM COSTILLA CREEK, NEW MEXICO-COLORADO

Records of discharge are collected at 8 gaging stations on 3 diversions from Costilla Creek. 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, NM (station 08255500). Records collected during irrigation season only. Several observations of water temperature were made at each site during the year.

08256000 ACEQUIA MADRE AT COSTILLA, NM.--Lat 36°58'03", long 105°30'57", Taos County, Hydrologic Unit 13020101, on right bank 135 ft (41 m) downstream from new diversion dam, and 1.2 mi (1.9 km) southeast of the intersection of State Highways 3 and 196 at Costilla. PERIOD OF RECORD, May 1944 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,870 ft (2,399 m), from topographic map. Acequia diverts from right bank of Costilla Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 50 ft^3/s (1.42 m^3/s) June 25, 1944, July 31, 1945; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 18 ft^3/s (0.51 m^3/s) June 30, Sept. 10; no flow Apr. 24.

08256500 MESA DITCH NEAR GARCIA, CO.--Lat 36°59'50", long 105°30'49", Costilla County, Hydrologic Unit 13020101, on left bank 429 ft (130 m) north of milepost No. 136 + 54 on New Mexico-Colorado State line, and 1.4 mi (2.3 km) east of Garcia. PERIOD OF RECORD, June 1944 to September 1965, May 1969 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,780 ft (2,371 m), from topographic map. Prior to June 1971, recording gage and June 1971 to April 1977, nonrecording gage near present site at different datums. Ditch diverts from right bank of Acequia Madre for irrigation in Colorado.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 21 ft^3/s (0.59 m^3/s) June 25, 1944, Aug. 3, 7, 1945; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 0.02 ft^3/s (0.0006 m^3/s) Aug. 9; no flow most of time.

08257500 CORDILLERA DITCH AT GARCIA, CO.--Lat 36°59'41", long 105°31'39", Taos County, Hydrologic Unit 13020101, on left bank 570 ft (170 m) south of New Mexico-Colorado State line, and 0.9 mi (1.4 km) southeast of Garcia. PERIOD OF RECORD, June 1944 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,750 ft (2,362 m), from topographic map. Ditch diverts from left bank of Acequia Madre for irrigation in Colorado.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 10 ft^3/s (0.28 m^3/s) June 13, 15, July 11, 1961; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 5.4 ft^3/s (0.153 m^3/s) Sept. 10; no flow many days.

08258000 CERRO CANAL AT COSTILLA, NM.--Lat 36°57'56", long 105°31'07", Taos County, Hydrologic Unit 13020101, on right bank 1,350 ft (410 m) downstream from new diversion dam, and 1.2 mi (1.9 km) southeast of the intersection of State Highways 3 and 196 at Costilla. PERIOD OF RECORD, April 1944 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,870 ft (2,399 m), from topographic map. Canal diverts from left bank of Costilla Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 139 ft^3/s (3.94 m^3/s) July 10, 1980; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 84 ft^3/s (2.38 m^3/s) June 4,18; no flow part of Apr. 24,25, May 23.

08258600 CERRO CANAL BELOW ASSOCIATION DITCH AT COSTILLA, NM.--Lat 36°57'41", long 105°32'05", Taos County, Hydrologic Unit 13020101, on left bank 220 ft (67 m) downstream from Association ditch, and 1.2 mi (1.9 km) south of the intersection of State Highways 3 and 196 at Costilla. PERIOD OF RECORD, May 1972 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,820 ft (2,384 m), from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 81 ft^3/s (2.29 m^3/s) July 18, 19, 1973; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 60 ft^3/s (1.70 m^3/s) May 7; no flow part of July 11, Sept. 12.

08259500 NEW MEXICO BRANCH CERRO CANAL NEAR JAROSO, CO.--Lat 36°59'37", long 105°34'28", Taos County, Hydrologic Unit 13020101, on right bank 45 ft(14 m) downstream from headgate, and 2.7 mi (4.3 km) east of Jaroso. PERIOD OF RECORD, June 1944 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,680 ft (2,341 m), from topographic map. Canal diverts from left bank of Cerro Canal for irrigation in New Mexico.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 29 ft^3/s (0.82 m^3/s) July 21, 1948; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 8.3 ft^3/s (0.24 m^3/s) June 3; no flow many days.

08259600 CERRO CANAL AT STATE LINE NEAR JAROSO, CO.--Lat 36°59'41", long 105°34'36", Taos County, Hydrologic Unit 13020101, on right bank 780 ft (240 m) downstream from head of N. Mex. branch Cerro Canal, and 2.7 mi (4.3 km) east of Jaroso. PERIOD OF RECORD, April 1973 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,680 ft (2,341 m), from topographic map. Flow measured is delivered to Colorado.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 68 ft^3/s (1.93 m^3/s) July 18, 19, 1973; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 55 ft^3/s (1.56 m^3/s) May 6; no flow at times.

08262000 EASTDALE NO. 1 INTAKE CANAL NEAR JAROSO, CO.--Lat 37°02'25", long 105°36'18", Costilla County, Hydrologic Unit 13020101, on left bank 750 ft (230 m) downstream from headgate, and 2.8 mi (4.5 km) north of Jaroso. PERIOD OF RECORD, June 1944 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,585 ft (2,312 m), from topographic map. Canal diverts from right bank of Costilla Creek to Eastdale Reservoir No. 1 for irrigation in Colorado.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 112 ft^3/s (3.17 m^3/s) May 16, 1958; no flow for long periods.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 25 ft^3/s (0.71 m^3/s) May 6,8; no flow for long periods.

MONTHLY DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	08256000 Acequia Madre	08256500 Mesa ditch	08257500 Cordillera ditch	08258000 Cerro Canal at Costilla	08258600 Cerro Canal below Association ditch	08259500 New Mexico branch Cerro Canal	08259600 Cerro Canal at State line nr Jaroso	08262000 Eastdale No. 1 intake canal
October	-	-	-	-	-	-	-	0
November	-	-	-	-	-	-	-	0
December	-	-	-	-	-	-	-	-
January	-	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-	42
April	-	-	-	1,160	-	-	-	610
May	446	0	25	2,740	1,530	161	1,220	332
June	754	.02	27	2,950	1,200	206	901	4.9
July	783	.02	68	2,800	1,360	155	1,160	11
August	674	.04	53	2,570	962	178	779	2.0
September ...	401	.02	108	917	393	42	337	39

08263500 RIO GRANDE NEAR CERRO, NM

LOCATION.--Lat 36°44'24", long 105°40'59", in NW¼NE¼ sec. 20, T.29 N., R.12 E., Taos County, Hydrologic Unit 13020101, on left bank 4 mi (6 km) southwest of Cerro, 5.5 mi (8.8 km) northwest of Questa, 7.4 mi (11.9 km) upstream from Red River, and at mile 1,693.1 (2,724.2 km).
DRAINAGE AREA.--8,440 mi^2 (21,860 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1948 to current year.
REVISED RECORDS.--WDR NM-80-1: 1978 (M).
GAGE.--Water-stage recorder. Altitude of gage is 7,110 ft (2,167 m), from topographic map.
REMARKS.--Water-discharge records good. Diversions above station for irrigation of about 620,000 acres (2,500 km^2) in Colorado and 7,000 acres (28 km^2) in New Mexico. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--33 years, 389 ft^3/s (11.02 m^3/s), 281,800 acre-ft/yr (347 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,740 ft^3/s (276 m^3/s) June 22, 1949, gage height, 15.78 ft (4.810 m); minimum, about 40 ft^3/s (1.13 m^3/s) Sept. 10, 11, 1977.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 533 ft^3/s (15.1 m^3/s) Dec. 6, gage height, 4.39 ft (1.338 m), no peak above base of 1,000 ft^3/s (28m^3/s); minimum, 61 ft^3/s (1.73 m^3/s) Oct. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	70	301	328	253	321	144	178	143	90	156	116
2	72	72	319	313	188	314	126	181	128	98	142	132
3	70	75	353	330	226	331	113	191	128	98	138	140
4	70	78	366	330	233	347	112	154	127	123	126	156
5	69	76	377	332	239	348	111	163	115	133	119	146
6	68	76	410	313	242	333	100	181	109	145	135	134
7	68	75	376	305	244	321	92	170	106	130	132	143
8	67	72	378	259	247	318	88	130	110	125	114	145
9	67	71	287	182	260	324	86	108	100	116	113	134
10	65	69	250	219	260	314	86	95	126	113	128	137
11	65	67	171	222	232	313	92	88	133	106	130	145
12	65	68	202	229	211	312	101	88	148	93	135	148
13	65	71	228	233	259	320	93	101	186	99	133	150
14	65	72	272	234	274	329	88	93	184	118	152	153
15	75	72	302	232	279	326	84	91	217	188	205	145
16	67	87	305	231	295	327	88	104	218	194	199	149
17	67	109	309	202	298	321	82	114	163	168	162	168
18	63	183	344	228	358	324	84	119	146	172	160	159
19	62	205	345	252	386	322	83	130	147	177	158	148
20	62	200	316	280	388	319	83	144	133	158	158	142
21	62	199	351	271	355	314	115	136	117	148	165	139
22	64	206	272	251	345	315	131	139	121	124	160	141
23	65	214	260	263	338	327	117	125	112	111	154	141
24	64	237	317	280	329	317	104	115	97	100	142	132
25	64	246	305	268	326	288	111	116	95	94	137	120
26	64	222	278	259	326	263	122	114	93	98	130	118
27	66	265	294	250	323	225	140	110	93	98	130	117
28	68	259	339	268	325	220	187	97	90	127	129	119
29	71	249	363	269	---	203	213	93	86	150	120	131
30	65	277	353	255	---	177	203	79	88	158	117	139
31	70	---	369	275	---	155	---	82	---	172	112	---
TOTAL	2069	4242	9712	8163	8039	9288	3379	3829	3859	4024	4391	4187
MEAN	66.7	141	313	263	287	300	113	124	129	130	142	140
MAX	75	277	410	332	388	348	213	191	218	194	205	168
MIN	62	67	171	182	188	155	82	79	86	90	112	116
AC-FT	4100	8410	19260	16190	15950	18420	6700	7590	7650	7980	8710	8300

CAL YR 1980 TOTAL 238047 MEAN 650 MAX 2990 MIN 62 AC-FT 472200
WTR YR 1981 TOTAL 65182 MEAN 179 MAX 410 MIN 62 AC-FT 129300

08263500 RIO GRANDE NEAR CERRO, NM--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977, 1979 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT										
07...	1830	68	335	8.9	--	14.0	.55	9.6	100	6
NOV										
17...	1630	98	375	8.7	-4.0	4.0	1.2	10.0	120	10
JAN										
06...	1430	313	190	8.0	6.0	2.0	3.4	10.2	69	0
MAR										
09...	1630	323	210	8.4	6.0	5.0	3.4	8.8	75	0
APR										
08...	1600	88	325	8.7	--	11.0	2.5	--	110	0
MAY										
11...	1530	90	270	8.5	--	12.0	3.6	11.8	93	8
JUN										
11...	1400	126	409	8.4	--	20.0	4.7	9.0	120	--
JUL										
16...	1300	184	230	8.3	22.0	20.0	22	8.4	73	0

DATE	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)
OCT									
07...	--	29	7.6	32	1.4	3.8	106	12	98
NOV									
17...	--	35	8.0	34	1.3	4.9	130	0	107
JAN									
06...	--	21	3.9	13	.7	2.6	84	0	69
MAR									
09...	2.0	23	4.3	16	.8	2.9	94	1	79
APR									
08...	.00	32	7.0	30	1.3	4.0	120	10	115
MAY									
11...	14	27	6.2	24	1.1	4.0	100	2	85
JUN									
11...	5.0	37	7.8	36	1.4	5.7	--	--	--
JUL									
16...	.00	22	4.5	21	1.1	4.3	120	0	98

DATE	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
OCT									
07...	--	60	8.2	.8	29	230	--	.02	.11
NOV									
17...	110	72	9.1	.6	29	259	--	.13	.13
JAN									
06...	71	25	3.2	.3	27	140	--	.26	.26
MAR									
09...	73	32	4.2	.3	27	154	--	.15	.14
APR									
08...	120	51	8.0	.7	29	235	--	.15	.14
MAY									
11...	79	49	6.6	.5	26	191	.000	.11	.11
JUN									
11...	120	66	8.4	.6	23	257	--	.08	.08
JUL									
16...	87	32	4.9	.4	27	169	--	.00	.01

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT									
07...	.000	--	1.2	1.2	.030	.010	30	10	2.8
NOV									
17...	.000	--	.71	.84	.020	.010	10	10	4.0
JAN									
06...	.080	--	.63	.97	.070	.070	50	7	9.0
MAR									
09...	.060	--	.60	.81	.120	.070	30	10	3.0
APR									
08...	.080	--	.74	.97	.100	.020	30	20	3.1
MAY									
11...	.140	--	.81	1.1	.140	.060	30	20	10
JUN									
11...	.160	--	.63	.87	.190	.060	40	30	12
JUL									
16...	.130	.090	1.9	2.0	.320	.110	40	5	4.8

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT								
07...	1830	0	30	10	4	<10	20	3
NOV								
17...	1630	1	10	10	5	<10	50	<3
JAN								
06...	1430	0	50	7	0	2	20	20
MAR								
09...	1630	0	30	10	12	12	100	8
APR								
08...	1600	0	30	20	41	<10	4	3
MAY								
11...	1530	0	30	20	9	<10	--	4
JUN								
11...	1400	0	40	30	5	<10	10	5
JUL								
16...	1300	1	40	5	20	<10	20	4

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
OCT		
07...	1830	4
NOV		
17...	1630	30
JAN		
06...	1430	0
MAR		
09...	1630	0
APR		
08...	1600	0
MAY		
11...	1530	3
JUN		
11...	1400	33

08263500 RIO GRANDE NEAR CERRO, NM--Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
MAR					
09...	1630	323	5.0	13	11
APR					
08...	1600	88	11.0	9	2.1
MAY					
11...	1530	90	12.0	14	3.4
JUN					
11...	1400	126	20.0	25	8.5
JUL					
16...	1300	184	20.0	55	27

08263510 RIO GRANDE ABOVE RED RIVER NEAR CERRO, NM

LOCATION.--Lat 36° 30'14", long 105° 41' 28", in NW¼ NW¼ sec. 20, T. 28N., R. 12E., Taos County, Hydrologic Unit 13020101, 0.5 mi (0.8 Km) upstream from mouth of Red River, 3.0 mi (4.8 Km) southwest of Red River State Fish Hatchery, and 6.4 mi (10.3 Km) southwest of Questa.

DRAINAGE AREA.--Undetermined.

PERIOD OF RECORD.--Water years 1979 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT 07...	1445	130	250	8.6	15.0	.40	9.5	95	2	27	6.6

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
OCT 07...	26	1.2	3.4	104	6	95	93	42	7.4	.8	34

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT 07...	204	.19	.19	.000	1.7	1.9	.020	.010	10	7	3.3

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT 07...	1445	0	10	7	4	<10	20	50

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT 07...	1445	1

08264500 RED RIVER BELOW ZWERGLE DAMSITE NEAR RED RIVER, NM

LOCATION.--Lat 36°40'25", long 105°22'46", in Taos County Hydrologic Unit 130020101, in Carson National Forest, 2,000 ft. (610 m) upstream from Goose Creek 1.9 mi (3.1 Km) downstream from Bear Canyon and 2.8 mi (4.5 Km) southeast of Red River.
DRAINAGE AREA.--28.9 mi^2 (74.9 Km^2).
PERIOD OF RECORD.--Water years 1962-65, 1979 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT										
14...	1200	14	165	8.0	--	7.0	.20	8.7	89	1
NOV										
19...	1330	10	190	8.2	4.0	1.0	1.0	10.6	91	0
JAN										
08...	1430	8.0	180	8.1	4.0	.0	.10	9.9	96	8
MAR										
11...	1445	E8.0	185	8.2	--	1.0	1.0	9.6	91	9
APR										
13...	1330	9.0	162	8.3	11.5	9.0	1.8	7.9	87	10
MAY										
14...	1430	10	173	8.3	15.0	10.0	.60	8.3	86	15
JUN										
10...	1000	41	125	7.5	20.0	7.0	1.3	8.9	64	--
JUL										
16...	1015	8.4	160	8.4	--	9.0	.60	8.7	86	7

DATE	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)
OCT										
14...	--	29	4.0	2.9	.1	.9	102	0	88	--
NOV										
19...	--	29	4.5	2.9	.1	1.0	120	0	98	93
JAN										
08...	--	31	4.5	3.4	.2	.8	110	0	90	88
MAR										
11...	8.0	29	4.5	3.0	.1	.8	100	0	82	83
APR										
13...	15	28	4.1	2.7	.1	1.0	94	0	77	72
MAY										
14...	19	28	3.9	2.6	.1	.7	86	0	71	67
JUN										
10...	22	21	2.7	2.1	.1	.7	--	--	--	42
JUL										
16...	19	28	4.0	2.8	.1	.9	92	2	79	67

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
OCT									
14...	13	.7	.1	7.5	111	--	--	.00	.00
NOV									
19...	11	.9	.1	7.5	113	--	--	.01	.01
JAN									
08...	15	.8	.1	7.2	126	--	--	.15	.17
MAR									
11...	14	1.9	.1	7.1	110	--	--	--	.01
APR									
13...	15	.8	.1	6.9	102	--	--	.12	.12
MAY									
14...	17	.6	.1	6.6	100	.09	.000	.10	.09
JUN									
10...	17	.3	.1	5.4	75	--	--	.15	.19
JUL									
16...	18	.6	.1	7.5	103	--	--	.06	.08

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT									
14...	.000	--	.56	.56	.010	.000	<10	50	3.2
NOV									
19...	.000	--	.38	.39	.020	.010	<10	10	.9
JAN									
08...	.050	7.70	.50	.70	.180	.010	20	40	8.6
MAR									
11...	--	--	--	--	--	.010	<10	20	4.0
APR									
13...	.090	--	.39	.60	.030	.020	20	10	7.2
MAY									
14...	.060	--	.27	.43	.020	.010	50	7	3.7
JUN									
10...	.150	--	.13	.43	.020	.000	10	5	5.0
JUL									
16...	.060	.100	.61	.73	.010	.010	10	5	1.9

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT								
14...	1200	0	<10	50	2	<10	30	7
NOV								
19...	1330	1	<10	10	2	<10	20	3
JAN								
08...	1430	0	20	40	0	<10	40	10
MAR								
11...	1445	0	<10	20	0	<10	20	10
APR								
13...	1330	0	20	10	47	<10	10	4
MAY								
14...	1430	0	50	7	5	<10	--	10
JUN								
10...	1000	0	10	5	3	<10	20	6
JUL								
16...	1015	1	10	5	14	<10	10	3

RIO GRANDE BASIN
08264500 RED RIVER BELOW ZWERGLE DAMSITE NEAR RED RIVER, NM

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
NOV		
19...	1330	0
JAN		
08...	1430	0
MAR		
11...	1445	0
APR		
13...	1330	0
MAY		
14...	1430	0
JUN		
10...	1000	1

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
MAR					
11...	1445	E8.0	1.0	0	.00
APR					
13...	1330	9.0	9.0	39	.95
JUN					
10...	1000	41	7.0	17	1.9
JUL					
16...	1015	8.4	9.0	17	.39

08264970 RED RIVER AT MOLYCORP MINE NEAR RED RIVER, NM

LOCATION.--Lat 36°41'57", long 105°28'44", in SE¼SE¼ sec 31, T.29N., R.14E., Taos County, Hydrologic Unit 13020101, in Carson National Forest, 0.8 mi (1.3 Km) upstream from Molycorps Mine and 4.0 mi (6.4 Km) east of Red River.
DRAINAGE AREA.--78.3 mi^2 (203 Km^2).
PERIOD OF RECORD.--Water years 1979 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT										
14...	1330	13	274	7.9	--	9.0	1.0	9.6	130	63
NOV										
19...	1530	12	285	7.6	4.0	1.0	3.6	9.8	130	76
JAN										
08...	1530	9.0	280	7.7	4.0	1.0	2.4	9.4	130	81
MAR										
11...	1545	7.0	275	7.9	--	2.5	2.7	9.0	130	74
APR										
13...	1500	15	250	7.9	14.0	10.0	5.4	8.9	120	64
MAY										
14...	1515	20	254	8.1	18.0	13.0	1.7	8.0	120	59
JUN										
10...	1215	46	170	7.8	26.0	12.0	3.0	8.1	84	--
JUL										
16...	1130	16	240	7.8	--	11.0	2.6	9.8	110	--

DATE	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)
OCT										
14...	--	37	8.0	5.0	.2	1.2	72	0	62	--
NOV										
19...	--	38	8.9	5.8	.2	1.3	66	0	54	56
JAN										
08...	--	37	8.9	5.9	.2	1.2	68	0	56	--
MAR										
11...	86	39	9.0	6.5	.2	1.3	68	0	56	48
APR										
13...	71	37	7.4	4.5	.2	1.6	68	0	56	52
MAY										
14...	57	35	7.2	4.6	.2	1.0	74	0	61	60
JUN										
10...	29	26	4.6	3.2	.2	.9	--	--	--	55
JUL										
16...	64	34	7.0	4.9	.2	1.2	--	--	--	50

DATE	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
OCT										
14...	--	72	1.8	.7	13	176	--	--	.08	.07
NOV										
19...	--	87	2.4	.3	14	192	--	--	.17	.18
JAN										
08...	--	84	2.2	.4	13	183	--	--	.32	.31
MAR										
11...	--	94	2.5	.4	13	196	--	--	.26	.28
APR										
13...	--	66	2.1	.3	11	162	--	--	.20	.17
MAY										
14...	--	61	1.6	.2	11	158	.08	.000	.12	.08
JUN										
10...	--	36	.5	.1	8.1	113	--	--	.11	.12
JUL										
16...	70	63	1.5	.2	12	155	--	--	.21	.23

RIO GRANDE BASIN
08264970 RED RIVER AT MOLYCORP MINE NEAR RED RIVER, NM

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT										
14...	.010	--	.55	.64	.090	.050	<10	170	4.8	.00
NOV										
19...	.030	--	.50	.70	.050	.000	<10	200	2.4	.00
JAN										
08...	.610	--	.79	1.7	.170	.010	<10	210	5.1	.00
MAR										
11...	.360	--	.64	1.3	.140	.010	<10	240	--	.00
APR										
13...	.160	--	.43	.79	.070	.010	50	130	--	.00
MAY										
14...	.080	--	.14	.34	.050	.010	20	100	5.8	.00
JUN										
10...	.170	--	.31	.59	.020	.020	40	50	5.9	.00
JUL										
16...	.200	.210	.55	.96	.080	.030	<10	100	2.0	.00

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT									
14...	1330	0	--	<10	170	2	0	100	30
NOV									
19...	1530	5	--	<10	200	2	<10	90	40
JAN									
08...	1530	0	--	<10	210	0	<10	60	40
MAR									
11...	1545	0	--	<10	240	8	8	70	50
APR									
13...	1500	0	4	50	130	33	<10	120	30
MAY									
14...	1515	0	--	20	100	18	<10	40	20
JUN									
10...	1215	0	--	40	50	3	<10	30	10
JUL									
16...	1130	1	--	<10	100	26	<10	50	20

08264970 RED RIVER AT MOLYCORP MINE NEAR RED RIVER, NM

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
NOV		
19...	1530	30
JAN		
08...	1530	150
MAR		
11...	1545	24
APR		
13...	1500	28
MAY		
14...	1515	0
JUN		
10...	1215	0

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
MAR					
11...	1545	7.0	2.5	9	.17
APR					
13...	1500	15	10.0	14	.57
JUN					
10...	1215	46	12.0	21	2.6
JUL					
16...	1130	16	11.0	11	.48
AUG					
13...	1145	25	11.0	14	.94

08265000 RED RIVER NEAR QUESTA, NM

LOCATION.--Lat 36°42'12", long 105°34'04", in NE¼SE¼ sec.32, T.29 N., R.13 E. (projected), Taos County, Hydrologic Unit 13020101, 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 mi^2 (293 km^2).

WATER-DISCHARGE RECORDS

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 to WSP 1312. Published as Rio Colorado above Questa 1910-11, 1926-30, and as Rio Colorado near Questa 1912-25, 1930-48.
REVISED RECORDS.--WSP 808: 1935. WSP 1392: 1913, 1932, 1941, 1947-48. WSP 1712: Drainage area.
GAGE.--Water-stage recorder. Wood or concrete control since Mar. 20, 1936. Datum of gage is 7,451.92 ft (2,271.345 m) National Geodetic Vertical Datum of 1929. See WSP 1923 for history of changes prior to Oct. 4, 1938.
REMARKS.--Water-discharge records good. 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.

Since January 1966 surface and ground water diversions by Molybdenum Corp. of America (Molycorp) refinery 5.5 mi (8.8 km) upstream bypass gage in tailings pipelines 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 below Fish Hatchery, near Questa (station 08266820). See tabulation below for bypass flow of water.

AVERAGE DISCHARGE.--52 years (water years 1913-25, 1927-65), 55.9 ft^3/s (1.583 m^3/s), 40,500 acre-ft/yr (49.9 hm^3/yr), prior to extensive upstream diversions by Molycorp; 16 years (water years 1966-81), 33.2 ft^3/s (0.940 m^3/s), 24,050 acre-ft/yr (29.7 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD (SINCE 1929).--Maximum discharge, 886 ft^3/s (25.1 m^3/s) May 25, 1942, from rating curve extended above 450 ft^3/s (13 m^3/s): maximum gage height, 5.80 ft (1.768 m) June 8, 1979; minimum discharge, 0.60 ft^3/s (0.017 m^3/s) Jan. 21, 1981, result of freezeup.

The maximum discharge of May 25, 1942, may have been equalled or exceeded by the peak of June 15, 1921.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 54 ft^3/s (1.53 m^3/s) June 10, gage height, 2.59 ft (0.789 m), no peak above base of 160 ft^3/s (4.5 m^3/s); minimum, 0.60 ft^3/s (0.017 m^3/s) Jan. 21, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	15	7.9	9.1	4.4	5.7	5.1	26	31	24	11	16
2	17	14	7.9	7.6	4.0	6.1	5.5	31	32	24	11	15
3	18	14	8.5	9.0	5.0	6.0	5.8	33	38	23	12	14
4	17	13	9.2	8.8	5.5	6.3	5.7	33	42	20	12	15
5	16	15	10	9.9	5.0	4.6	4.0	32	39	18	11	15
6	15	14	10	6.4	5.4	5.4	5.5	30	38	19	12	15
7	15	13	10	5.7	5.1	5.4	6.5	28	39	17	13	16
8	15	13	12	7.5	4.6	4.0	6.9	25	43	19	13	17
9	14	13	11	6.3	4.5	5.5	9.1	23	47	18	12	17
10	14	13	4.9	6.2	4.4	5.9	12	21	47	19	13	18
11	14	14	5.9	6.4	4.6	5.3	11	20	45	17	23	17
12	14	13	10	6.8	5.0	6.0	12	18	44	17	28	17
13	13	13	12	5.6	5.4	4.8	12	21	43	16	21	17
14	13	15	11	3.6	6.1	5.1	14	19	40	18	19	16
15	23	12	10	3.9	6.4	4.6	12	19	38	17	18	16
16	19	10	11	4.6	6.1	5.0	11	22	35	15	19	15
17	17	6.1	11	5.1	5.9	5.5	13	23	31	15	17	15
18	17	4.5	11	5.1	5.8	4.4	15	23	28	14	18	15
19	18	4.9	11	5.1	5.6	4.6	15	23	27	14	18	15
20	16	5.1	7.6	3.7	5.5	5.6	17	23	26	12	19	14
21	16	4.9	7.6	2.8	5.8	5.7	18	22	23	12	19	15
22	15	4.8	9.5	3.7	4.6	5.5	18	21	21	11	19	15
23	15	5.2	11	5.1	5.3	6.2	17	22	21	11	19	14
24	13	5.7	8.5	5.7	5.3	5.8	17	21	20	11	18	14
25	13	5.4	11	4.2	5.5	6.2	19	21	18	11	17	14
26	13	5.0	11	3.7	5.0	7.1	19	21	17	11	17	13
27	14	4.8	12	3.9	4.5	7.6	19	22	16	14	19	14
28	14	5.9	10	4.7	5.3	7.1	20	23	17	13	21	13
29	14	6.6	10	4.9	---	5.2	21	25	21	12	19	13
30	15	7.2	8.4	4.2	---	6.3	22	29	21	12	17	13
31	15	---	9.6	5.0	---	5.6	---	29	---	12	17	---
TOTAL	480	290.1	300.5	174.3	145.6	174.1	388.1	749	948	486	522	453
MEAN	15.5	9.67	9.69	5.62	5.20	5.62	12.9	24.2	31.6	15.7	16.8	15.1
MAX	23	15	12	9.9	6.4	7.6	22	33	47	24	28	18
MIN	13	4.5	4.9	2.8	4.0	4.0	4.0	18	16	11	11	13
AC-FT	952	575	596	346	289	345	770	1490	1880	964	1040	899
(†)	489	475	563	446	410	397	484	418	488	458	260	63

CAL YR 1980 TOTAL 16654.4 MEAN 45.5 MAX 278 MIN 4.5 AC-FT 33030 † 6070
WTR YR 1981 TOTAL 5110.7 MEAN 14.0 MAX 47 MIN 2.8 AC-FT 10140 † 4950

† Bypass flow of water, in acre-feet, through tailings pipelines; records furnished by Molycorp. Mill did not operate Aug. 15 to Sept. 30.

08265000 RED RIVER NEAR QUESTA, NM

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT										
14...	1445	12	302	7.7	--	11.0	.40	8.2	140	88
NOV										
19...	1420	5.0	320	7.0	3.0	.0	18	10.0	140	110
JAN										
08...	1615	9.5	290	7.3	-2.0	.0	13	10.6	140	99
MAR										
10...	1245	5.9	340	7.1	--	3.0	56	--	160	130
11...	1230	5.0	330	7.3	--	4.0	31	9.2	160	130
APR										
13...	1600	12	278	7.6	--	12.0	33	8.2	130	87
MAY										
14...	1630	19	271	7.7	20.0	14.0	4.6	7.7	120	79
JUN										
10...	1415	51	185	7.5	--	16.0	5.2	7.5	90	--
JUL										
14...	1530	20	270	7.8	--	17.0	18	7.5	130	82
17...	2200	--	270	7.5	--	--	--	--	130	--
AUG										
11...	2400	29	--	--	--	--	--	--	230	--
13...	1600	19	258	7.5	--	16.0	9.1	7.8	120	71

DATE	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)
OCT									
14...	--	41	8.2	5.0	.2	1.1	54	0	48
NOV									
19...	--	43	8.3	4.8	.2	1.2	40	0	33
JAN									
08...	--	43	8.4	5.2	.2	1.1	52	0	43
MAR									
10...	140	48	9.5	5.1	.2	1.2	34	0	28
11...	130	47	9.6	5.4	.2	1.2	42	0	34
APR									
13...	90	38	7.4	5.2	.2	1.3	52	0	43
MAY									
14...	71	37	7.2	4.4	.2	1.1	50	0	41
JUN									
10...	51	28	4.8	3.4	.2	1.0	--	--	--
JUL									
14...	92	39	7.5	5.0	.2	1.3	58	0	48
17...	--	41	7.0	4.7	.2	--	--	--	--
AUG									
11...	--	72	11	6.0	.2	--	--	--	--
13...	73	37	7.2	5.6	.2	1.2	60	0	49

RIO GRANDE BASIN

08265000 RED RIVER NEAR QUESTA, NM

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	ALKALINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)
OCT									
14...	--	100	2.2	1.8	11	200	.05	.04	.000
NOV									
19...	27	120	2.2	.9	10	209	.15	.17	.000
JAN									
08...	--	110	1.9	.9	11	210	.36	.35	.240
MAR									
10...	22	140	2.2	1.1	10	232	.22	.02	.020
11...	23	150	2.2	1.0	10	242	--	.01	--
APR									
13...	35	87	2.8	.8	9.4	174	.16	.14	.070
MAY									
14...	51	77	1.5	.6	10	170	.05	.08	.030
JUN									
10...	39	47	1.0	.4	8.2	118	.08	.11	.140
JUL									
14...	36	83	1.9	.7	11	173	.21	.25	.100
17...	--	--	--	--	10	--	--	--	--
AUG									
11...	--	--	--	--	14	--	--	--	--
13...	49	74	1.6	.5	11	169	.29	.30	.190

DATE	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT									
14...	--	.29	.34	.050	.030	10	490	4.1	.00
NOV									
19...	--	.54	.69	.010	.000	140	940	1.0	.00
JAN									
08...	--	.57	1.2	.080	.000	80	600	14	.00
MAR									
10...	--	.61	.85	.030	--	70	950	1.6	.00
11...	--	--	--	--	--	110	990	2.2	.00
APR									
13...	--	.57	.80	.120	.010	20	470	4.2	.00
MAY									
14...	--	.10	.18	.020	.000	20	350	3.0	.00
JUN									
10...	--	.00	.21	.020	.000	30	160	4.3	.00
JUL									
14...	.120	.31	.62	.080	.010	10	350	2.1	.00
17...	--	--	--	--	--	25	61	--	--
AUG									
11...	--	--	--	--	--	<10	1500	--	--
13...	--	.42	.90	.140	.030	<10	340	2.0	<.01

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)
OCT								
14...	1445	--	--	--	1	--	--	--
NOV								
19...	1420	--	--	--	9	--	--	--
JAN								
08...	1615	--	--	--	1	--	--	--
MAR								
10...	1245	--	--	--	1	--	--	--
11...	1230	--	--	--	1	--	--	--
APR								
13...	1600	--	--	--	0	--	--	--
MAY								
14...	1630	--	--	--	1	--	--	--
JUN								
10...	1415	--	--	--	0	--	--	--
JUL								
14...	1530	--	--	--	1	--	--	--
17...	2200	--	30	1	0	<1	20	<3
AUG								
11...	2400	22	26	2	1	2	60	23
13...	1600	--	--	--	1	--	--	--

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
OCT									
14...	--	--	--	10	--	--	--	--	490
NOV									
19...	--	--	--	140	--	--	--	--	940
JAN									
08...	--	--	--	80	--	--	--	--	600
MAR									
10...	--	--	--	70	--	--	--	--	950
11...	--	--	--	110	--	--	--	--	990
APR									
13...	--	5	--	20	--	--	--	--	470
MAY									
14...	--	--	--	20	--	--	--	--	350
JUN									
10...	--	--	--	30	--	--	--	--	160
JUL									
14...	--	--	--	10	--	--	--	--	350
17...	110	<10	38000	25	160	<10	13	700	61
AUG									
11...	480	40	180000	<10	840	<10	17	2600	1500
13...	--	--	--	<10	--	--	--	--	340

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT								
14...	--	8	6	--	--	--	330	70
NOV								
19...	--	12	<10	--	--	--	--	190
JAN								
08...	--	9	10	--	--	--	140	110
MAR								
10...	--	27	<10	--	--	--	260	160
11...	--	11	14	--	--	--	220	210
APR								
13...	--	100	<10	--	--	--	130	50
MAY								
14...	--	1	<10	--	--	--	160	40
JUN								
10...	--	6	<10	--	--	--	60	60
JUL								
14...	--	19	11	--	--	--	90	30
17...	--	30	19	--	230	<6.0	230	14
AUG								
11...	.2	140	<10	5	330	<6.0	750	360
13...	--	8	10	--	--	--	100	38

RIO GRANDE BASIN
08265000 RED RIVER NEAR QUESTA, NM
WATER-QUALITY RECORDS

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
NOV		
19...	1420	0
JAN		
08...	1615	0
MAR		
11...	1230	0
APR		
13...	1600	0
MAY		
14...	1630	0
JUN		
10...	1415	0

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAR									
10...	1245	5.9	3.0	150	2.4	--	--	--	--
11...	1230	5.0	4.0	27	.36	--	--	--	--
APR									
13...	1600	12	12.0	54	1.7	--	--	--	--
JUN									
10...	1415	51	16.0	63	8.7	--	--	--	--
JUL									
14...	1530	20	17.0	35	1.9	--	--	--	--
17...	2200	18	--	3970	193	--	--	--	100
AUG									
11...	2400	29	--	6550	513	45	60	91	100
13...	1600	19	16.0	41	2.1	--	--	--	--

08266000 CABRESTO CREEK NEAR QUESTA, NM

LOCATION.--Lat 36°43'50", long 105°33'12", in SE¼SE¼ sec.21, T.29 N., R.13 E., Taos County, Hydrologic Unit 13020101, 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).

WATER-DISCHARGE RECORDS

DRAINAGE AREA.--36.7 mi^2 (95.1 km^2).
PERIOD OF RECORD.--September 1943 to current year.
REVISED RECORDS.--WSP 1712: Drainage area.
GAGE.--Water-stage recorder and concrete control. Altitude of gage is 7,845 ft (2,391 m), from river-profile map.
REMARKS.--Water-discharge records fair. Llano ditch (station 08265500), the only diversion above station, diverts from right bank 900 ft (270 m) above gage for irrigation of about 800 acres (3.2 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. Present capacity of Cabresto Reservoir is 1,100 acre-feet (1.36 hm^3) after further rehabilitation between 1959 and 1961. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--38 years, 9.70 ft^3/s (0.275 m^3/s), 7,030 acre-ft/yr (8.67 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 176 ft^3/s (4.98 m^3/s) June 8, 1957, gage height, 4.44 ft (1.353 m); maximum gage height, 4.53 ft (1.381 m) May 29, 1979; minimum discharge, 0.44 ft^3/s (0.012 m^3/s) Dec. 2, 1950, result of freezeup.
EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of May 25, 1942, may have exceeded the maximum of record.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16 ft^3/s (0.45 m^3/s) Apr. 19, gage height, 1.13 ft (0.344 m); minimum, 1.7 ft^3/s (0.048 m^3/s) Feb. 1, 11, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	7.3	5.6	5.0	3.2	4.1	5.2	13	12	9.9	10	8.2
2	5.3	7.6	5.5	5.0	3.3	4.2	5.2	13	12	9.5	9.7	7.8
3	5.4	8.1	5.4	5.1	3.8	4.3	5.3	12	13	9.6	9.2	7.4
4	5.4	8.3	5.3	4.9	4.3	4.3	5.2	12	13	9.1	10	7.0
5	5.3	8.6	5.1	5.0	4.2	4.3	4.6	12	13	8.8	11	6.8
6	5.2	8.6	5.2	4.8	4.1	4.4	5.3	12	13	8.5	11	6.2
7	5.2	8.5	5.1	4.6	4.0	4.5	5.7	12	13	8.6	10	6.4
8	5.2	8.4	5.0	4.9	3.8	4.3	5.9	13	13	8.9	11	6.6
9	5.2	8.5	4.9	4.8	3.9	4.4	6.6	13	13	8.6	11	5.3
10	5.2	8.3	4.2	4.7	3.6	4.4	8.1	13	12	8.7	11	4.6
11	5.2	8.1	4.8	4.7	3.2	4.5	9.6	12	12	9.7	13	4.6
12	5.2	8.0	5.0	4.8	4.1	4.7	12	12	12	9.9	14	4.6
13	5.2	7.9	4.9	4.6	4.1	4.6	11	12	12	9.7	12	5.0
14	5.3	8.0	5.0	4.5	4.0	4.7	12	12	12	10	12	5.4
15	7.6	7.6	5.0	4.5	4.0	4.6	9.8	12	12	10	12	5.6
16	7.3	7.4	5.0	4.7	4.0	4.7	10	12	12	9.6	12	5.7
17	7.3	6.5	5.0	4.4	4.0	4.7	12	12	12	10	12	5.9
18	7.2	6.4	5.0	4.3	3.9	4.3	13	12	11	12	12	5.7
19	7.5	6.4	5.0	4.3	3.8	4.5	13	13	11	12	11	5.2
20	7.0	6.3	4.8	4.0	3.9	4.7	13	13	11	11	11	4.8
21	5.4	6.1	4.9	4.0	4.0	4.7	13	13	10	11	11	4.5
22	5.1	6.1	5.0	4.5	3.7	4.7	12	13	10	11	11	4.4
23	5.1	6.3	5.0	4.5	4.0	4.8	11	12	10	12	11	4.5
24	5.1	6.2	4.9	4.3	4.0	4.8	12	12	10	12	10	4.9
25	5.2	6.0	5.1	4.1	4.0	4.8	12	12	10	12	10	4.7
26	5.7	5.7	5.1	4.0	4.0	5.1	12	12	9.7	12	9.9	4.3
27	6.2	5.8	5.1	4.0	4.0	5.3	12	12	9.5	12	9.6	4.2
28	6.2	5.9	5.1	4.1	4.1	5.5	12	12	9.4	11	9.5	4.2
29	6.6	5.9	5.1	4.0	---	5.3	12	12	9.6	11	9.1	4.3
30	6.8	5.7	5.0	3.8	---	5.5	12	12	9.4	11	8.6	4.3
31	7.1	---	5.1	4.0	---	5.4	---	12	---	10	8.5	---
TOTAL	182.1	214.5	156.2	138.9	108.9	145.1	292.5	381	341.6	319.1	333.1	163.1
MEAN	5.87	7.15	5.04	4.48	3.89	4.68	9.75	12.3	11.4	10.3	10.7	5.44
MAX	7.6	8.6	5.6	5.1	4.3	5.5	13	13	13	12	14	8.2
MIN	5.1	5.7	4.2	3.8	3.2	4.1	4.6	12	9.4	8.5	8.5	4.2
AC-FT	361	425	310	276	216	288	580	756	678	633	661	324
(†)	---	---	---	---	---	---	0	56	25	.4	0	0

CAL YR 1980 TOTAL 5353.6 MEAN 14.6 MAX 99 MIN 3.8 AC-FT 10620
WTR YR 1981 TOTAL 2776.1 MEAN 7.61 MAX 14 MIN 3.2 AC-FT 5510

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

RIO GRANDE BASIN
08266000 CABRESTO CREEK NEAR QUESTA, NM
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT												
09...	1400	5.2	163	8.0	--	9.0	.10	9.0	69	18	--	22
JAN												
08...	1515	5.2	172	7.7	-3.0	2.0	.30	10.6	69	16	--	22
MAR												
12...	1445	4.7	160	7.7	--	4.0	.60	--	73	35	31	23
APR												
13...	1645	9.9	145	7.7	12.0	7.5	1.1	9.0	64	23	30	20
MAY												
12...	1530	12	130	7.4	16.0	6.5	12	8.9	63	22	19	20
JUN												
10...	1500	11	130	7.6	--	13.0	1.5	7.8	59	--	24	19
AUG												
13...	1000	12	135	7.5	--	10.0	2.9	8.4	59	13	13	19

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
OCT												
09...	3.5	4.0	.2	.8	57	0	51	--	30	.3	.6	12
JAN												
08...	3.4	3.9	.2	.7	60	0	49	53	36	.5	.3	11
MAR												
12...	3.7	3.9	.2	.8	46	0	38	42	37	.5	.3	11
APR												
13...	3.5	3.6	.2	.8	50	0	41	34	31	.5	.4	11
MAY												
12...	3.2	3.8	.2	.8	50	0	41	44	26	.5	.3	11
JUN												
10...	2.9	3.8	.2	.7	--	--	--	35	26	.5	.3	11
AUG												
13...	2.9	3.2	.2	.6	56	0	46	46	20	.4	.2	11

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT												
09...	104	--	.00	.00	.000	.32	.32	.020	.020	20	20	3.0
JAN												
08...	110	--	.04	.04	.060	.27	.37	.020	.010	10	20	13
MAR												
12...	106	--	.06	.09	.840	.00	.57	.150	.010	<10	8	3.7
APR												
13...	91	--	.00	.01	.050	.41	.46	.020	.020	40	8	4.4
MAY												
12...	92	.000	.05	.05	.060	.27	.38	.020	.030	<10	10	4.9
JUN												
10...	85	--	.04	.04	.150	.12	.31	.010	.000	<10	3	1.9
AUG												
13...	86	--	.13	.13	.110	.11	.35	.020	.030	<10	3	1.4

RIO GRANDE BASIN
08266000 CABRESTO CREEK NEAR QUESTA, NM
WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT									
09...	1400	0	--	20	20	2	<10	20	110
JAN									
08...	1515	0	--	10	20	0	<10	30	30
MAR									
12...	1445	0	--	<10	8	0	<10	20	10
APR									
13...	1645	0	1	40	8	110	<10	10	10
MAY									
12...	1530	0	--	<10	10	1	<10	--	10
JUN									
10...	1500	1	--	<10	3	2	<10	20	7
AUG									
13...	1000	1	--	<10	3	2	<10	50	3

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
JAN		
08...	1515	0
MAR		
12...	1445	0
APR		
13...	1645	1
MAY		
12...	1530	0
JUN		
10...	1500	3

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
APR					
13...	1645	9.9	7.5	5	.13
MAY					
12...	1530	12	6.5	7	.23
AUG					
13...	1000	12	10.0	8	.26

08266500 RED RIVER BELOW QUESTA, NM

LOCATION.--Lat 36°41'34", long 105°36'42", SW¼NE¼ sec. 1, T. 28N., R. 12E., Taos County, Hydrologic Unit 13020101, at bridge on State Highway 3, 1.3 mi (2.1 Km) southwest of Questa.

DRAINAGE AREA.--160 mi^2 (414 Km^2).

PERIOD OF RECORD.--Water years 1979 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT										
09...	1245	16	304	7.8	--	14.0	.60	8.2	140	81
NOV										
18...	1530	7.3	330	7.6	--	4.0	8.9	8.8	150	110
JAN										
07...	1450	11	310	7.5	7.0	2.0	12	10.8	150	110
MAR										
10...	1300	E9.0	330	7.5	--	5.0	34	10.8	150	110
APR										
13...	1015	12	270	7.5	--	9.0	120	9.0	130	84
MAY										
14...	1230	E17	290	7.7	--	14.0	4.0	--	130	77
JUN										
08...	1545	33	215	7.6	--	20.0	3.4	9.0	100	49
JUL										
14...	1415	12	302	7.6	20.0	18.0	7.5	7.5	140	84

DATE	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)
OCT									
09...	--	41	7.9	5.3	.2	1.3	64	0	54
NOV									
18...	--	47	8.9	5.9	.2	1.4	62	0	51
JAN									
07...	--	46	8.9	5.6	.2	1.1	46	0	38
MAR									
10...	120	45	8.4	5.6	.2	1.3	46	0	38
APR									
13...	92	41	7.6	5.5	.2	1.4	56	0	46
MAY									
14...	74	39	7.6	5.1	.2	1.2	64	0	52
JUN									
08...	56	32	5.5	3.8	.2	1.1	62	0	51
JUL									
14...	95	44	7.9	6.1	.2	1.4	68	0	56

DATE	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)
OCT									
09...	--	97	2.8	.9	12	201	.09	.08	.000
NOV									
18...	--	110	2.3	.9	13	218	.11	.14	.000
JAN									
07...	--	120	2.2	1.0	11	224	.30	.29	.140
MAR									
10...	32	110	2.2	.9	11	205	.19	.21	.020
APR									
13...	42	90	3.1	.9	9.8	186	.13	.23	.060
MAY									
14...	55	82	1.9	.6	11	182	.15	.08	.050
JUN									
08...	47	57	1.4	.5	9.1	139	.08	.10	.140
JUL									
14...	47	92	2.3	.7	14	198	.14	.17	.060

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT									
09...	--	.33	.42	.030	.030	10	310	11	--
NOV									
18...	--	.67	.78	.010	.000	20	620	1.6	--
JAN									
07...	--	.70	1.1	.060	.000	10	660	2.8	--
MAR									
10...	--	.57	.78	.100	--	10	580	--	--
APR									
13...	--	.83	1.0	.220	.040	50	320	3.1	--
MAY									
14...	--	.09	.29	.020	.040	10	200	2.4	--
JUN									
08...	.080	.00	.17	.020	.000	20	110	3.2	.00
JUL									
14...	--	.44	.64	.010	.020	<10	140	1.4	.00

DATE	TIME	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR) (01082)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT										
09...	1245	0	10	310	9	<10	--	--	100	50
NOV										
18...	1530	6	20	620	13	<10	250	300	150	100
JAN										
07...	1450	1	10	660	10	10	--	--	170	110
MAR										
10...	1300	1	10	580	39	22	--	--	130	80
APR										
13...	1015	0	50	320	110	<10	--	--	100	20
MAY										
14...	1230	1	10	200	5	<10	--	--	40	30
JUN										
08...	1545	0	20	110	9	<10	--	--	40	20
JUL										
14...	1415	0	<10	140	26	11	--	--	70	20

RIO GRANDE BASIN
08266500 RED RIVER BELOW QUESTA, NM

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
NOV		
18...	1530	0
JAN		
07...	1450	2
MAR		
10...	1300	0
APR		
13...	1015	15
MAY		
14...	1230	3
JUN		
08...	1545	1

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
MAR					
10...	1300	E9.0	5.0	65	--
APR					
13...	1015	12	9.0	116	3.6
MAY					
14...	1230	E17	14.0	14	--
JUL					
14...	1415	12	18.0	15	.49
AUG					
12...	1700	E11	16.0	16	--

08266790 RED RIVER ABOVE STATE FISH HATCHERY NEAR QUESTA, NM

LOCATION.--Lat 36°41'12" long 105°38'40", in SE¼SE¼ sec. 3, T.28N., R.12E., Taos County, Hydrologic Unit 13002010l, 0.5 mi (0.8 Km) upstream from Red River State Fish Hatchery and 3.0 mi (4.8 Km) southwest of Questa.

DRAINAGE AREA.--175 mi^2 (453 km^2).

PERIOD OF RECORD.--Water years 1979 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT										
09...	1015	33	350	8.1	--	10.0	.60	8.4	160	81
NOV										
18...	1330	20	480	8.4	7.0	8.0	3.7	8.8	200	100
JAN										
07...	1145	19	825	8.3	1.0	6.0	10	9.6	360	270
MAR										
10...	1330	E19	945	8.0	--	7.5	21	10.6	440	380
APR										
09...	1415	E17	580	8.1	19.0	13.5	--	--	270	210
MAY										
14...	0900	23	834	7.9	9.0	8.5	2.0	8.6	390	320
JUN										
08...	1300	50	425	8.1	29.0	14.0	3.9	9.0	210	150
JUL										
14...	1100	30	780	8.2	21.0	15.0	17	8.0	380	310

DATE	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)
OCT									
09...	--	48	8.9	18	.6	2.1	92	0	76
NOV									
18...	--	60	11	24	.7	2.1	120	2	102
JAN									
07...	--	120	15	30	.7	5.3	120	0	98
MAR									
10...	--	150	15	25	.5	6.8	76	0	62
APR									
09...	210	88	12	19	.5	3.8	74	0	61
MAY									
14...	320	130	15	20	.4	6.6	80	0	66
JUN									
08...	150	68	8.8	11	.3	3.3	76	0	62
JUL									
14...	320	130	14	21	.5	7.2	84	0	69

DATE	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)
OCT									
09...	--	110	5.9	1.0	20	261	.15	.15	.000
NOV									
18...	--	140	5.7	.8	20	321	.21	.22	.000
JAN									
07...	89	320	12	1.4	19	579	.47	.40	.080
MAR									
10...	57	430	6.6	1.3	15	687	.32	.32	.030
APR									
09...	57	240	5.6	1.1	16	421	.22	.23	.080
MAY									
14...	67	360	5.2	1.0	14	594	.23	.20	.060
JUN									
08...	61	170	3.3	.6	11	314	.11	.15	.140
JUL									
14...	59	350	6.3	1.1	15	582	.23	.31	.100

08266790 RED RIVER ABOVE STATE FISH HATCHERY NEAR QUESTA, NM

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT									
09...	--	.65	.80	.030	.010	<10	220	--	--
NOV									
18...	--	.37	.58	.020	.000	<10	210	.7	--
JAN									
07...	--	1.6	2.2	.070	.030	<10	310	4.4	--
MAR									
10...	--	.57	.92	.110	.020	20	520	3.9	--
APR									
09...	--	.46	.76	.040	.030	20	300	3.3	.00
MAY									
14...	--	.92	1.2	.030	.000	<10	200	5.0	--
JUN									
08...	--	.29	.54	.040	.010	10	140	6.9	.00
JUL									
14...	.120	.43	.76	.060	.030	10	310	2.5	.01

DATE	TIME	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT										
09...	1015	0	--	<10	220	100	120	--	160	30
NOV										
18...	1330	3	--	<10	210	180	160	420	40	20
JAN										
07...	1145	0	--	<10	310	840	690	--	70	--
MAR										
10...	1330	0	--	20	520	800	740	--	50	20
APR										
09...	1415	0	5	20	300	340	340	--	40	20
MAY										
14...	0900	1	--	<10	200	560	560	--	30	20
JUN										
08...	1300	0	--	10	140	230	240	--	20	20
JUL										
14...	1100	1	--	10	310	340	--	--	40	20

08266790 RED RIVER ABOVE STATE FISH HATCHERY NEAR QUESTA, NM

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
NOV 18...	1330	13
JAN 07...	1145	0
MAR 10...	1330	0
APR 09...	1415	4
MAY 14...	0900	15
JUN 08...	1300	16

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
MAR 10...	1330	E19	7.5	41	--
APR 09...	1415	E17	13.5	11	--
MAY 14...	0900	23	8.5	14	.85
JUL 14...	1100	30	15.0	38	3.1
AUG 12...	1430	E27	17.0	19	--

08266820 RED RIVER BELOW FISH HATCHERY, NEAR QUESTA, NM

LOCATION.--Lat 36°40'54", long 105°39'21", in NW¼NW¼ sec.10, T.28 N., R.12 E., Taos County, Hydrologic Unit 13020101, on right bank 0.3 mi (0.5 km) downstream from State Fish Hatchery, 3.5 mi (5.6 km) upstream from mouth, and 3.7 mi (6.0 km) southwest of Questa.
DRAINAGE AREA.--185 mi^2 (479 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1969 to July 1978 (discharge measurements only), August 1978 to current year.
GAGE.--Water-stage recorder. Altitude of gage is 7,070 ft (2,155 m), from topographic map. Prior to Aug. 16, 1979, at site about 250 ft (76 m) upstream at datum 5.55 ft (1.692 ft) higher.
REMARKS.--Water-discharge records good. Diversions for irrigation of about 3,000 acres (12 km^2) above station.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 755 ft^3/s (21.4 m^3/s) June 8, 1979, gage height, 5.30 ft (1.615 m), site and datum then in use; minimum, 25 ft^3/s (0.71 m^3/s) Oct. 9,11, 1978.
EXTREMES FOR CURRENT YEAR.-- Maximum discharge, 105 ft^3/s (2.97 m^3/s) July 7, gage height, 2.23 ft (0.680 m), no peak above base of 165 ft^3/s (4.7 m^3/s); minimum, 26 ft^3/s (0.74 m^3/s) Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	47	40	40	33	33	34	53	55	50	39	41
2	50	45	40	38	32	33	34	61	56	51	40	40
3	49	45	39	38	33	34	36	63	68	50	39	40
4	49	44	39	38	34	34	35	62	83	45	39	42
5	47	43	40	39	33	32	31	62	77	43	35	42
6	47	43	42	35	32	32	32	61	73	42	33	41
7	47	42	44	34	33	33	32	58	69	49	32	41
8	46	43	44	34	32	32	32	55	69	52	33	43
9	46	43	44	36	33	33	33	52	68	49	33	44
10	45	42	39	48	33	36	35	49	66	50	36	45
11	45	43	38	44	30	37	35	43	64	46	56	44
12	45	48	40	42	31	37	52	42	62	45	67	44
13	45	42	43	39	30	36	47	42	61	44	58	43
14	44	43	42	36	30	36	42	42	61	49	52	42
15	55	42	41	34	31	36	39	40	61	44	45	41
16	53	40	41	33	31	36	37	43	60	43	44	39
17	50	35	43	34	32	36	39	46	59	45	43	40
18	51	34	44	34	31	34	42	47	55	48	41	39
19	52	34	43	35	31	34	42	49	54	42	40	38
20	51	35	40	34	30	35	44	53	50	40	41	31
21	52	34	39	33	31	35	43	48	45	38	41	30
22	49	34	39	34	29	35	43	44	45	36	42	31
23	48	34	41	36	30	36	42	44	44	37	42	37
24	48	34	40	37	31	36	41	46	43	37	41	36
25	46	35	41	35	31	37	43	48	40	37	40	37
26	43	37	42	34	31	38	43	49	41	38	42	35
27	44	36	43	33	32	39	44	51	43	42	42	36
28	41	36	42	34	32	37	44	52	41	37	43	36
29	43	38	41	34	---	35	46	54	44	36	42	36
30	48	40	40	32	---	37	49	56	46	35	41	36
31	47	---	40	35	---	35	---	52	---	36	42	---
TOTAL	1477	1191	1274	1122	882	1089	1191	1567	1703	1336	1304	1170
MEAN	47.6	39.7	41.1	36.2	31.5	35.1	39.7	50.5	56.8	43.1	42.1	39.0
MAX	55	48	44	48	34	39	52	63	83	52	67	45
MIN	41	34	38	32	29	32	31	40	40	35	32	30
AC-FT	2930	2360	2530	2230	1750	2160	2360	3110	3380	2650	2590	2320

CAL YR 1980 TOTAL 29298 MEAN 80.0 MAX 361 MIN 34 AC-FT 58110
WTR YR 1981 TOTAL 15306 MEAN 41.9 MAX 83 MIN 29 AC-FT 30360

PERIOD OF RECORD.--Water year 1978 TO Current year.
REMARKS.--Replaces station 08266800 Red River at Fish Hatchery near Questa, NM. Samples collected at this location (08266820) since July 1974, but published under 08266800 until 1978 calendar year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT										
09...	1100	46	371	8.0	--	13.0	.55	8.0	140	54
NOV										
18...	1401	32	380	8.3	4.0	11.0	5.5	7.8	140	35
JAN										
07...	1230	31	550	8.1	--	9.0	1.6	8.2	210	120
FEB										
18...	1215	31	540	7.9	8.0	11.0	1.6	8.2	210	130
MAR										
10...	1345	34	600	8.0	8.0	11.0	11	<16.0	260	190
APR										
09...	1445	33	440	8.1	19.0	15.0	2.2	--	180	110
MAY										
14...	1130	42	575	8.0	--	14.0	1.8	8.7	260	190
JUN										
08...	1400	69	400	8.2	30.0	18.0	3.4	7.8	180	110
JUL										
14...	1330	46	600	8.1	26.0	19.0	4.5	7.8	260	250
AUG										
12...	1600	65	540	7.6	--	17.0	33	--	230	170

DATE	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)
OCT										
09...	--	42	8.2	20	.7	2.3	94	0	85	--
NOV										
18...	--	41	8.3	25	.9	2.4	100	14	155	--
JAN										
07...	--	67	10	28	.8	3.6	110	0	90	--
FEB										
18...	--	67	9.6	23	.7	3.7	74	0	61	75
MAR										
10...	190	89	10	24	.6	4.7	88	0	72	69
APR										
09...	110	56	9.0	22	.7	3.3	90	0	74	69
MAY										
14...	190	85	11	22	.6	4.7	90	0	74	71
JUN										
08...	120	57	8.2	15	.5	3.3	84	0	69	58
JUL										
14...	190	85	11	22	.6	5.4	9	0	7	70
AUG										
12...	170	76	9.9	19	.6	5.2	78	0	64	63

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)
OCT									
09...	93	6.5	1.0	23	245	248	.17	.16	.000
NOV									
18...	90	7.0	.9	25	--	256	.26	.25	.030
JAN									
07...	170	8.5	1.3	25	--	369	.43	.44	.130
FEB									
18...	180	7.4	1.0	23	--	362	.32	.34	.140
MAR									
10...	230	7.5	1.2	22	--	432	.31	.31	.120
APR									
09...	140	6.9	1.1	23	--	304	.27	.26	.170
MAY									
14...	220	6.4	1.0	21	--	416	.21	.29	.120
JUN									
08...	130	4.6	.7	16	--	271	.17	.18	.160
JUL									
14...	230	6.9	1.0	21	--	425	.22	.20	.110
AUG									
12...	190	5.8	.9	18	--	365	.30	.33	.240

RIO GRANDE BASIN
08266820 RED RIVER BELOW FISH HATCHERY, NEAR QUESTA, NM--Continued
WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT									
09...	.92	1.1	.060	.010	--	10	140	--	.00
NOV									
18...	.44	.73	.100	.020	--	10	110	2.5	1.0
JAN									
07...	.81	1.4	.090	.040	30	20	130	4.6	.00
FEB									
18...	.00	.46	.060	.030	20	10	190	21	.02
MAR									
10...	.54	.97	.110	.040	20	20	280	3.2	.02
APR									
09...	.59	1.0	.080	.040	10	40	140	3.0	.00
MAY									
14...	.98	1.3	.050	.000	20	40	110	5.3	.00
JUN									
08...	.61	.94	.040	.020	10	<10	90	7.2	.00
JUL									
14...	.67	1.0	.010	.000	10	<10	140	.9	.00
AUG									
12...	.41	.95	.160	.050	20	<10	130	2.8	<.01

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT										
09...	1100	--	0	--	10	140	110	92	60	10
NOV										
18...	1401	--	3	--	10	110	98	97	40	10
JAN										
07...	1230	30	0	--	20	130	370	300	110	10
FEB										
18...	1215	20	0	--	10	190	340	270	20	20
MAR										
10...	1345	20	0	--	20	280	400	390	20	70
APR										
09...	1445	10	0	3	40	140	190	190	20	10
MAY										
14...	1130	20	0	--	40	110	330	330	10	9
JUN										
08...	1400	10	0	--	<10	90	--	180	20	10
JUL										
14...	1330	10	0	--	<10	140	9	--	40	7
AUG										
12...	1600	20	1	--	<10	130	--	330	70	21

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
NOV		
18...	1401	14
JAN		
07...	1230	0
MAR		
10...	1345	0
APR		
09...	1445	1
MAY		
14...	1130	5
JUN		
08...	1400	13

08266820 RED RIVER BELOW FISH HATCHERY, NEAR QUESTA, NM--Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
JAN					
07...	1230	31	9.0	15	1.3
FEB					
18...	1215	31	11.0	31	2.6
MAR					
10...	1345	34	11.0	37	3.4
APR					
09...	1445	33	15.0	14	1.2
MAY					
14...	1130	42	14.0	13	1.5
JUL					
14...	1330	46	19.0	21	2.6
AUG					
12...	1600	65	17.0	16	2.8

08267000 RED RIVER AT MOUTH, NEAR QUESTA, NM--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966-69 to current year.

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT												
07...	1345	60	300	8.4	--	14.0	.70	8.4	120	40	--	36
NOV												
17...	1430	49	350	8.7	5.0	10.0	12	9.0	120	32	--	35
JAN												
06...	1230	45	440	8.3	11.0	8.0	1.4	9.2	160	87	--	52
MAR												
09...	1430	46	520	8.4	9.0	13.0	1.4	8.1	220	150	--	71
APR												
08...	1415	44	422	8.4	19.0	15.5	2.8	--	160	84	88	49
MAY												
15...	1500	58	460	8.2	--	14.0	1.9	7.4	190	120	120	62
JUN												
10...	1615	75	470	8.0	32.0	20.0	2.5	7.4	200	--	140	66
JUL												
16...	1700	54	460	8.3	26.0	20.0	3.0	7.4	190	110	120	60

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
OCT												
07...	7.3	19	.8	2.2	92	2	79	80	77	6.8	1.0	24
NOV												
17...	7.5	25	1.0	2.6	100	12	86	--	75	7.1	.9	27
JAN												
06...	8.4	24	.8	3.1	100	0	82	77	130	11	1.1	26
MAR												
09...	9.2	25	.7	4.3	85	1	71	72	190	7.6	1.2	25
APR												
08...	8.2	22	.8	3.1	88	2	76	68	120	7.0	1.2	25
MAY												
15...	9.1	22	.7	3.8	92	0	75	76	150	6.4	1.0	23
JUN												
10...	8.6	18	.6	3.8	--	--	--	58	180	5.5	.8	18
JUL												
16...	9.1	22	.7	4.1	100	0	82	72	160	6.7	1.0	24

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT												
07...	223	.23	.23	.000	.48	.71	.050	.030	10	60	3.2	--
NOV												
17...	235	--	.63	--	--	--	--	.060	20	40	--	--
JAN												
06...	305	.50	.54	.060	.39	.95	.050	.020	10	70	11	--
MAR												
09...	379	.37	.38	.060	1.4	1.9	.050	.020	10	90	2.3	.01
APR												
08...	277	.16	.15	.100	2.1	2.4	.060	.020	120	50	2.8	--
MAY												
15...	325	.28	.34	.060	.23	.57	.020	.000	<10	30	3.2	--
JUN												
10...	337	.21	.25	.160	.20	.57	.030	.010	20	50	.5	--
JUL												
16...	332	.30	.32	.080	.17	.55	.020	.030	<10	30	1.0	--

08267000 RED RIVER AT MOUTH, NEAR QUESTA, NM--Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT								
07...	1345	0	10	60	56	66	70	5
NOV								
17...	1430	1	20	40	86	83	120	4
JAN								
06...	1230	0	10	70	270	230	20	10
MAR								
09...	1430	0	10	90	400	320	20	7
APR								
08...	1415	0	120	50	150	150	30	10
MAY								
15...	1500	1	<10	30	200	200	10	9
JUN								
10...	1615	0	20	50	250	240	20	10
JUL								
16...	1700	0	<10	30	250	250	30	5

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT		
07...	1345	2
NOV		
17...	1430	2
JAN		
06...	1230	1
MAR		
09...	1430	0
APR		
08...	1415	0
JUN		
10...	1615	7

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
MAR					
09...	1430	46	13.0	9	1.1
APR					
08...	1415	44	15.5	10	1.2
JUN					
10...	1615	75	20.0	22	4.5
JUL					
16...	1700	54	20.0	20	2.9

08267400 RIO GRANDE ABOVE RIO HONDO AT DUNN BRIDGE, NM

LOCATION.--Lat 36° 32' 06", long 105° 42'30" in NW¼ sec. 31, T.27N., R.12E., Taos County, Hydrologic Unit 13020101, at Dunn bridge on county road, 50 ft (15 m) upstream from mouth of Arroyo Hondo, 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.--Undetermined.

PERIOD OF RECORD.--Water years 1979 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT										
08...	1530	195	307	8.4	--	16.0	.40	10.0	100	7
NOV										
18...	1100	225	320	8.5	2.0	5.0	1.5	10.2	110	3
JAN										
07...	1000	395	237	8.0	.0	4.0	2.8	10.2	82	8
MAR										
10...	0930	418	245	8.2	2.0	5.0	3.0	9.3	91	9
APR										
09...	1245	192	305	8.3	15.5	12.0	1.8	--	110	12
MAY										
13...	1430	E209	355	8.5	20.0	15.0	2.2	9.5	140	48
JUN										
08...	0930	235	320	8.0	26.0	17.0	3.9	8.6	120	30
JUL										
15...	1430	300	310	8.3	--	19.0	12	7.2	110	12

DATE	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)
OCT									
08...	--	29	6.8	22	1.0	3.1	112	2	93
NOV									
18...	--	32	8.1	27	1.1	3.7	130	1	108
JAN									
07...	--	25	4.7	15	.7	2.7	62	0	51
MAR									
10...	17	28	5.0	18	.8	3.1	100	0	82
APR									
09...	22	33	6.9	25	1.0	3.7	120	0	98
MAY									
13...	45	42	7.4	24	.9	3.9	100	6	92
JUN									
08...	30	38	7.1	23	.9	4.2	110	0	90
JUL									
15...	24	35	6.6	23	.9	4.4	120	0	98

DATE	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)
OCT									
08...	--	48	7.0	.8	30	203	.19	.18	.000
NOV									
18...	110	61	7.9	.8	31	239	.21	.26	.000
JAN									
07...	--	33	4.1	.5	30	161	.35	.34	.100
MAR									
10...	74	44	4.8	.5	28	177	.21	.23	.060
APR									
09...	89	56	7.3	.9	30	217	.25	.24	.080
MAY									
13...	90	89	6.7	.7	28	257	.19	.20	.050
JUN									
08...	94	68	6.2	.6	25	232	.20	.76	.130
JUL									
15...	91	59	6.3	.6	30	220	.06	.10	.080

08267400 RIO GRANDE ABOVE RIO HONDO AT DUNN BRIDGE, NM

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT									
08...	--	.60	.79	.030	.010	30	10	3.5	.00
NOV									
18...	--	.38	.59	.050	.000	<10	20	3.7	.00
JAN									
07...	--	.41	.86	.090	.060	30	20	6.4	--
MAR									
10...	--	.89	1.2	.100	.070	40	30	2.4	--
APR									
09...	--	.69	1.0	.050	.020	40	20	2.4	--
MAY									
13...	--	.22	.46	.050	.000	10	20	4.2	--
JUN									
08...	--	.61	.94	.100	.100	30	30	8.0	--
JUL									
15...	.130	.83	.97	.140	.070	20	20	3.4	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT								
08...	1530	0	30	10	22	26	30	<3
NOV								
18...	1100	0	<10	20	16	<10	20	<3
JAN								
07...	1000	0	30	20	22	24	30	30
MAR								
10...	0930	0	40	30	42	47	10	10
APR								
09...	1245	0	40	20	200	38	30	5
MAY								
13...	1430	1	10	20	89	89	0	3
JUN								
08...	0930	0	30	30	55	59	20	20
JUL								
15...	1430	1	20	20	83	69	50	<3

08267400 RIO GRANDE ABOVE RIO HONDO AT DUNN BRIDGE, NM

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
OCT		
08...	1530	1
NOV		
18...	1100	2
JAN		
07...	1000	0
MAR		
10...	0930	2
APR		
09...	1245	1
MAY		
13...	1430	0
JUN		
08...	0930	3

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
MAR					
10...	0930	418	5.0	10	11
APR					
09...	1245	192	12.0	6	3.1
MAY					
13...	1430	E209	15.0	11	--
JUL					
15...	1430	300	19.0	61	49
AUG					
11...	1545	258	19.0	19	13

08267500 RIO HONDO NEAR VALDEZ, NM

LOCATION.--Lat 36°32'30", long 105°33'21", Taos County, Hydrologic Unit 13020101, 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 mi^2 (93.8 km^2).
PERIOD OF RECORD.--August 1934 to current year.
REVISED RECORDS.--WSP 1342: 1935. WSP 1712: Drainage area. WSP 1732: 1942(M).
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.
REMARKS.--Records good. No diversions above station. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--47 years, 34.0 ft^3/s (0.963 m^3/s), 24,630 acre-ft/yr (30.4 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 541 ft^3/s (15.3 m^3/s) May 13, 1941; maximum gage height, 4.81 ft (1.466 m) Jan. 5, 1970 (ice jam); minimum discharge, about 1 ft^3/s (0.03 m^3/s) Jan. 27, 1942, result of freezeup.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 58 ft^3/s (1.64 m^3/s) June 3, gage height, 2.28 ft (0.695 m), no peak above base of 80 ft^3/s (2.3 m^3/s); maximum gage height, 2.33 ft (0.710 m) Feb. 11 (backwater from ice); minimum discharge, 4.4 ft^3/s (0.12 m^3/s) Feb. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	15	11	10	9.0	7.8	9.1	25	43	28	15	15
2	16	15	12	9.9	8.0	7.8	9.6	27	40	26	16	15
3	16	15	12	9.8	8.8	8.2	9.6	28	45	25	16	15
4	15	14	12	9.8	9.5	8.2	9.1	28	45	24	15	15
5	15	14	11	9.7	10	8.1	10	28	45	24	15	15
6	15	14	11	9.8	10	8.3	9.7	27	47	23	16	14
7	15	14	11	10	9.4	8.2	10	26	50	24	16	15
8	15	14	11	9.7	9.0	8.1	11	25	51	24	16	15
9	14	14	11	9.4	8.2	7.9	11	24	53	23	16	15
10	14	13	11	10	8.3	8.0	12	24	52	23	16	15
11	14	13	11	10	8.0	8.1	13	24	52	22	20	14
12	14	13	11	10	8.5	8.1	13	24	52	21	20	14
13	14	13	11	9.5	9.0	8.2	15	24	51	21	18	14
14	14	14	11	9.0	8.8	8.4	15	23	51	20	17	14
15	18	13	11	9.5	8.6	8.3	14	25	49	20	17	13
16	16	12	11	9.5	8.4	8.4	14	28	47	19	17	13
17	15	11	11	9.0	8.3	8.4	15	27	45	19	18	13
18	15	11	11	9.0	8.1	8.6	16	27	43	19	18	13
19	15	12	11	8.9	8.0	8.4	20	28	40	18	17	12
20	15	12	11	8.9	8.1	8.4	20	28	38	17	18	12
21	15	12	11	8.3	8.0	8.4	19	29	37	17	20	12
22	15	12	11	8.7	8.0	8.2	19	30	35	17	20	11
23	14	12	10	9.1	8.3	8.5	18	29	34	17	19	12
24	14	12	10	8.7	7.9	8.6	18	29	33	17	18	12
25	14	12	10	9.0	7.8	8.6	19	28	32	16	18	12
26	14	12	10	8.3	7.8	8.9	20	28	30	18	18	11
27	16	14	10	8.0	7.8	9.1	21	30	29	19	18	11
28	15	11	10	8.8	7.8	8.9	22	34	28	16	17	11
29	14	11	10	8.5	---	8.7	22	37	29	16	16	11
30	14	11	10	9.0	---	8.8	23	38	29	16	16	11
31	14	---	10	9.5	---	8.7	---	39	---	16	16	---
TOTAL	460	385	335	287.3	237.4	259.3	457.1	871	1255	625	533	395
MEAN	14.8	12.8	10.8	9.27	8.48	8.36	15.2	28.1	41.8	20.2	17.2	13.2
MAX	18	15	12	10	10	9.1	23	39	53	28	20	15
MIN	14	11	10	8.0	7.8	7.8	9.1	23	28	16	15	11
AC-FT	912	764	664	570	471	514	907	1730	2490	1240	1060	783

CAL YR 1980 TOTAL 15009.0 MEAN 41.0 MAX 268 MIN 10 AC-FT 29770
WTR YR 1981 TOTAL 6100.1 MEAN 16.7 MAX 53 MIN 7.8 AC-FT 12100

08268500 ARROYO HONDO AT ARROYO HONDO, NM

LOCATION.--Lat 36°31'56", long 105°41'06", Taos County, Hydrologic Unit 13020101, 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 mi^2 (169.9 km^2).

WATER-DISCHARGE RECORDS

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. Statement in WSP 328 that there was no flow in January and much of February 1912 is erroneous. Published as Rio Hondo near Arroyo Hondo prior to 1928, and as Rio Hondo at Arroyo Hondo 1928-65.
REVISED RECORDS.--WSP 1342: 1915, 1932(M), 1934-38(M). WSP 1712: Drainage area. WSP 1732: 1926. See also PERIOD OF RECORD.
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.
REMARKS.--Water-discharge records good. Diversions above station for irrigation of about 2,500 acres (10 km^2), of which about 1,700 acres (6.9 km^2) is a transbasin diversion to Rio Lucero.
AVERAGE DISCHARGE.--65 years (water years 1913-28, 1933-81), 26.7 ft^3/s (0.756 m^3/s), 19,340 acre-ft/yr (23.8 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD (SINCE 1937).--Maximum discharge, 1,060 ft^3/s (30.0 m^3/s) July 19, 1948, gage height, 3.75 ft (1.143 m), from rating curve extended above 200 ft^3/s (5.7 m^3/s); maximum gage height, 5.06 ft (1.542 m) June 8, 1979, backwater from debris; minimum discharge, 3.3 ft^3/s (0.093 m^3/s) May 7, 1977.
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 ft^3/s (34 m^3/s). A minimum daily discharge of 3 ft^3/s (0.08 m^3/s) occurred Oct. 19, 1912. Discharge not determined for the major floods of Oct. 6, 1911, Sept. 1, 1932 and July 22, 1934.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 33 ft^3/s (0.93 m^3/s) Aug. 7, gage height, 2.61 ft (0.796 m), no peak above base of 75 ft^3/s (2.1 m^3/s); minimum, 4.6 ft^3/s (0.13 m^3/s) July 20, result of regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	9.0	18	18	14	15	11	6.7	7.7	7.9	6.8	7.4
2	8.1	13	20	18	12	15	11	6.6	7.2	7.6	7.0	7.1
3	8.1	13	20	18	15	16	11	6.4	7.8	7.2	6.6	7.5
4	8.1	13	20	18	16	16	11	6.3	7.8	7.1	6.6	7.6
5	8.1	13	20	18	16	15	10	6.7	7.7	7.0	6.5	7.6
6	8.1	13	20	18	16	15	11	6.8	8.2	7.0	6.7	7.3
7	8.1	13	20	17	17	15	11	6.4	8.8	7.0	9.0	7.7
8	8.1	13	20	18	16	15	11	6.8	8.7	6.8	6.8	8.1
9	8.1	13	20	17	17	14	11	6.9	9.2	6.9	6.7	7.3
10	8.1	13	19	17	15	14	11	6.8	8.4	6.9	6.7	7.0
11	8.1	13	19	17	13	14	10	7.2	7.4	6.9	11	7.0
12	8.1	12	19	17	17	14	10	6.7	7.2	6.9	7.9	7.0
13	8.1	13	19	16	16	14	9.1	6.6	7.3	7.1	7.3	7.1
14	8.1	13	19	15	16	14	6.7	6.7	8.0	7.0	7.0	7.4
15	13	13	19	16	16	14	6.6	6.9	7.9	7.1	7.2	7.3
16	9.0	12	19	17	16	14	6.7	7.9	7.5	7.1	7.3	7.2
17	8.1	11	19	17	16	14	6.4	7.6	7.3	7.0	7.5	7.3
18	7.7	11	19	17	16	13	6.6	7.1	7.2	7.0	7.3	7.6
19	7.7	12	18	17	16	14	6.8	6.9	7.2	7.0	7.0	7.4
20	7.7	12	18	15	16	14	6.7	6.8	7.3	6.8	7.0	7.1
21	7.7	12	18	14	16	14	6.7	6.7	7.2	6.2	7.1	7.1
22	7.7	12	18	16	15	14	6.8	6.7	7.2	6.4	8.5	7.1
23	7.7	13	19	18	16	14	6.5	6.8	6.9	6.4	7.6	7.5
24	7.7	14	19	17	16	14	6.5	7.1	6.8	6.4	7.6	7.7
25	7.7	13	19	16	16	14	6.5	6.8	7.0	6.3	7.4	7.3
26	7.7	14	19	15	16	16	6.1	6.7	7.1	6.7	7.3	7.1
27	9.8	18	19	15	16	15	6.1	6.6	6.8	6.6	7.4	7.0
28	9.4	19	19	17	16	13	6.2	6.8	7.0	6.3	7.4	7.0
29	9.0	18	18	17	---	12	6.1	7.3	7.5	6.1	7.4	7.0
30	8.6	17	18	16	---	12	6.0	7.0	7.8	6.2	7.4	7.1
31	8.1	---	18	17	---	11	---	7.4	---	6.4	7.6	---
TOTAL	257.7	398.0	589	519	439	438	248.1	212.7	227.1	211.3	228.6	218.9
MEAN	8.31	13.3	19.0	16.7	15.7	14.1	8.27	6.86	7.57	6.82	7.37	7.30
MAX	13	19	20	18	17	16	11	7.9	9.2	7.9	11	8.1
MIN	7.7	9.0	18	14	12	11	6.0	6.3	6.8	6.1	6.5	7.0
AC-FT	511	789	1170	1030	871	869	492	422	450	419	453	434

CAL YR 1980 TOTAL 11599.6 MEAN 31.7 MAX 188 MIN 6.9 AC-FT 23010
WTR YR 1981 TOTAL 3987.4 MEAN 10.9 MAX 20 MIN 6.0 AC-FT 7910

08268500 ARROYO HONDO AT ARROYO HONDO, NM

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT										
08...	1415	9.8	367	8.6	--	18.0	.30	8.0	160	0
NOV										
18...	1146	9.0	325	8.9	5.0	5.0	1.9	10.4	150	19
JAN										
07...	1040	13	265	8.5	.0	3.0	12	11.0	130	5
MAR										
10...	1100	14	255	8.3	3.0	4.0	1.6	10.8	120	0
APR										
09...	1300	11	260	8.5	16.0	14.0	4.9	--	130	8
MAY										
13...	1500	6.3	350	8.6	20.0	18.5	3.1	8.4	150	9
JUN										
08...	1030	8.6	357	8.6	26.0	15.0	2.5	8.8	150	0
JUL										
15...	1545	6.6	330	8.5	--	21.0	1.0	6.5	150	1

DATE	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)
OCT									
08...	--	48	8.6	18	.6	1.8	128	8	160
NOV									
18...	--	46	7.5	15	.5	1.8	160	0	82
JAN									
07...	--	40	6.1	12	.5	1.3	140	6	125
MAR									
10...	18	38	5.7	10	.4	1.2	170	0	139
APR									
09...	16	40	6.3	12	.5	1.4	140	4	121
MAY									
13...	.00	46	8.1	16	.6	1.8	160	6	141
JUN									
08...	3.0	48	8.0	16	.6	1.7	180	4	154
JUL									
15...	19	46	8.3	17	.6	1.5	170	6	149

DATE	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
OCT									
08...	--	31	7.4	.4	20	--	234	.48	.47
NOV									
18...	140	32	6.0	.3	17	203	213	.71	.72
JAN									
07...	120	27	5.1	.3	15	--	183	.83	.83
MAR									
10...	100	22	4.7	.3	13	--	157	.53	.53
APR									
09...	110	26	5.7	.3	14	--	174	.63	.58
MAY									
13...	150	34	6.3	.3	18	--	223	.62	.59
JUN									
08...	150	37	5.9	.4	17	--	229	.45	.49
JUL									
15...	130	34	6.6	.3	21	--	215	.44	.48

RIO GRANDE BASIN

08268500 ARROYO HONDO AT ARROYO HONDO, NM

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT									
08...	.000	5.6	6.1	.020	.000	--	40	8	4.7
NOV									
18...	.000	.67	1.4	.020	.000	20	<10	9	1.5
JAN									
07...	.080	1.4	2.3	.030	.040	--	20	40	16
MAR									
10...	.100	.30	.93	.030	.000	--	10	10	4.4
APR									
09...	.230	.87	1.7	.050	.050	--	50	7	6.2
MAY									
13...	.060	.37	1.1	.040	--	--	20	5	7.4
JUN									
08...	.170	.19	.81	.010	.000	--	20	8	8.6
JUL									
15...	.080	.44	.96	.000	.010	--	10	6	2.0

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT									
08...	1415	--	0	40	8	8	<10	30	5
NOV									
18...	1146	20	1	<10	9	8	<10	10	<3
JAN									
07...	1040	--	0	20	40	5	8	20	10
MAR									
10...	1100	--	0	10	10	13	19	20	<3
APR									
09...	1300	--	0	50	7	110	<10	10	<3
MAY									
13...	1500	--	2	20	5	11	11	10	10
JUN									
08...	1030	--	1	20	8	9	<10	10	6
JUL									
15...	1545	--	0	10	6	68	<10	10	5

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
OCT		
08...	1415	26
NOV		
18...	1146	10
JAN		
07...	1040	4
MAR		
10...	1100	0
APR		
09...	1300	0
MAY		
13...	1500	87
JUN		
08...	1030	100

08268500 ARROYO HONDO AT ARROYO HONDO, NM

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
MAR					
10...	1100	14	4.0	3	.11
APR					
09...	1300	11	14.0	26	.77
MAY					
13...	1500	6.3	18.5	31	.53
JUL					
15...	1545	6.6	21.0	24	.43
AUG					
11...	1600	8.6	21.0	19	.44

08268700 RIO GRANDE NEAR ARROYO HONDO, NM

LOCATION.--Lat 36°32'04", long 105°42'34", in NW¼ sec.31, T.27 N., R.12 E., Taos County, Hydrologic Unit 13020101, 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 mi^2 (22,690 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.
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.
REMARKS.--Records good. Diversions above station for irrigation of about 620,000 acres (2,500 km^2) in Colorado and 15,000 acres (61 km^2) in New Mexico. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--18 years, 573 ft^3/s (16.23 m^3/s), 415,100 acre-ft/yr (512 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,240 ft^3/s (177 m^3/s) June 11, 1979, gage height, 7.34 ft (2.237 m); minimum, 136 ft^3/s (3.85 m^3/s) Aug. 2, 1963.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,020 ft^3/s (28.9 m^3/s) Aug. 7, gage height, 2.94 ft (0.896 m), no peak above base of 1,400 ft^3/s (40 m^3/s); minimum, 166 ft^3/s (4.70 m^3/s) Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	186	199	418	434	381	446	268	321	263	216	280	222
2	182	200	447	422	325	437	248	310	256	234	264	236
3	181	203	460	438	340	453	236	332	278	225	253	249
4	181	204	464	430	366	469	230	318	261	244	245	263
5	179	202	499	430	366	468	224	290	254	250	226	270
6	178	201	508	422	374	451	213	325	249	276	237	256
7	177	200	486	431	370	440	200	310	250	267	304	253
8	174	199	499	392	370	433	192	283	250	265	231	263
9	174	196	451	321	385	439	189	247	244	259	219	253
10	171	195	389	355	392	436	188	225	250	252	234	256
11	171	190	304	360	359	434	191	210	279	241	266	260
12	171	199	340	365	335	434	203	205	268	223	279	266
13	169	193	354	370	372	438	205	216	321	217	266	270
14	169	196	389	358	398	447	196	213	327	235	273	276
15	203	196	430	348	397	447	192	205	339	284	314	266
16	195	202	442	340	417	447	193	216	381	336	336	263
17	191	213	434	313	422	442	191	238	316	307	290	276
18	190	263	455	324	456	438	193	241	287	303	279	283
19	188	332	468	363	494	442	197	247	280	306	273	270
20	188	336	460	386	505	438	193	268	268	290	274	253
21	190	321	460	381	483	434	224	266	248	268	276	250
22	188	325	418	366	467	434	232	257	239	251	284	247
23	188	328	378	381	461	442	253	245	241	229	268	253
24	187	351	438	397	451	442	222	236	222	217	264	250
25	185	366	430	385	447	413	219	235	216	207	249	238
26	182	343	405	366	449	397	231	237	216	206	246	228
27	191	381	413	370	443	362	244	234	216	217	242	228
28	190	374	455	389	449	351	273	224	210	215	244	228
29	194	366	468	381	---	336	332	220	210	260	238	241
30	196	397	472	374	---	312	336	213	213	261	229	252
31	199	---	468	385	---	281	---	199	---	282	225	---
TOTAL	5708	7871	13502	11777	11474	13083	6708	7786	7852	7843	8108	7619
MEAN	184	262	436	380	410	422	224	251	262	253	262	254
MAX	203	397	508	438	505	469	336	332	381	336	336	283
MIN	169	190	304	313	325	281	188	199	210	206	219	222
AC-FT	11320	15610	26780	23360	22760	25950	13310	15440	15570	15560	16080	15110

CAL YR 1980 TOTAL 304083 MEAN 831 MAX 3670 MIN 169 AC-FT 603100
WTR YR 1981 TOTAL 109331 MEAN 300 MAX 508 MIN 169 AC-FT 216900

08269000 RIO PUEBLO DE TAOS NEAR TAOS, NM

LOCATION.--Lat 36°26'22", long 105°30'11", in SW¼SE¼ sec. 36, T.26 N., R.13 E., Taos County, Hydrologic Unit 13020101, 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 mi^2 (172.5 km^2).

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.

REVISED RECORDS.--WSP 1312: 1911-12, 1914. WSP 1732: Drainage area.

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.

REMARKS.--Records good except those for winter period, which are fair. No diversions above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--36 years (water years 1911-16, 1941-51, 1963-81), 28.1 ft^3/s (0.796 m^3/s), 20,360 acre-ft/yr (25.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,050 ft^3/s (29.7 m^3/s) May 26, 1979, gage height, 3.42 ft (1.042 m), from rating curve extended above 370 ft^3/s (10 m^3/s); maximum gage height, 3.90 ft (1.189 m), from floodmark, May 14, 1941, site and datum then in use; minimum discharge, about 0.9 ft^3/s (0.03 m^3/s) Jan. 9, 1964, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31 ft^3/s (0.88 m^3/s) June 3, gage height, 0.99 ft (0.302 m), no peak above base of 60 ft^3/s (1.7 m^3/s); maximum gage height, 1.01 ft (0.308 m) Feb. 8 (backwater from ice); minimum discharge, 3.4 ft^3/s (0.096 m^3/s) Feb. 6, but may have been less during periods of ice effect.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	10	9.5	7.9	6.6	6.8	9.1	25	20	11	6.0	8.1
2	9.0	10	9.2	7.5	7.0	6.7	9.9	26	19	8.9	5.5	7.3
3	9.0	10	9.1	8.4	9.7	7.0	10	30	23	8.0	6.2	6.8
4	9.0	9.7	9.2	7.0	7.3	6.7	9.2	27	25	7.7	6.7	6.8
5	8.9	9.7	9.2	7.9	7.0	6.8	8.5	25	23	7.5	5.9	7.8
6	8.7	9.7	9.2	6.2	7.5	6.7	9.5	24	22	7.9	6.6	7.6
7	8.9	9.7	9.2	6.2	6.8	6.6	11	20	20	7.9	7.6	7.2
8	8.9	9.7	9.2	7.7	7.0	6.4	12	18	19	7.8	7.2	8.3
9	8.8	9.6	9.2	7.0	6.2	6.6	12	17	19	9.4	6.4	7.9
10	8.8	9.3	6.6	7.1	5.9	6.6	14	15	19	8.4	6.5	7.1
11	8.8	9.2	8.8	7.1	7.0	7.0	15	15	19	7.4	13	6.8
12	8.9	9.2	10	7.0	7.5	7.2	15	14	18	8.1	18	7.0
13	9.0	9.6	9.7	6.6	6.6	7.2	19	13	17	7.8	13	6.5
14	8.8	10	9.7	7.3	6.8	7.3	20	12	16	6.7	9.8	7.1
15	13	9.4	9.7	7.6	6.4	7.2	16	12	15	6.9	8.7	6.5
16	12	8.9	9.7	7.1	6.3	7.4	17	17	14	7.1	8.4	6.6
17	11	6.7	9.7	6.6	6.4	7.4	19	17	13	6.7	8.3	7.3
18	10	7.7	9.2	6.9	6.6	6.9	19	17	12	6.6	9.5	6.5
19	10	8.8	9.2	7.0	6.6	7.2	22	18	11	6.3	9.1	6.5
20	10	9.0	7.9	6.6	6.6	7.6	21	19	10	5.9	9.8	6.1
21	10	9.1	8.4	7.0	6.6	7.3	21	19	9.6	5.5	11	5.8
22	10	8.6	8.8	6.6	6.2	7.2	20	19	8.9	5.2	12	5.7
23	10	9.6	9.2	6.5	7.0	7.7	19	18	8.7	5.1	11	5.8
24	9.3	10	7.5	6.3	6.9	8.1	19	17	8.5	5.1	9.4	6.1
25	9.7	9.6	8.8	6.6	6.9	8.2	20	17	8.5	5.1	8.6	5.9
26	9.9	9.2	8.8	6.6	6.8	9.1	21	18	8.4	6.6	8.5	5.5
27	10	8.4	8.8	6.2	6.7	9.5	22	19	8.1	6.8	8.1	5.4
28	9.7	9.5	8.4	6.0	6.6	9.6	23	20	9.3	5.6	8.4	5.3
29	9.9	9.8	8.4	5.9	---	9.0	23	20	10	5.2	9.2	5.3
30	10	9.8	7.9	6.2	---	9.0	24	21	13	5.5	8.3	5.3
31	10	---	7.9	6.6	---	9.3	---	21	---	5.2	7.9	---
TOTAL	299.0	279.5	276.1	213.2	191.5	233.3	500.2	590	447.0	214.9	274.6	197.9
MEAN	9.65	9.32	8.91	6.88	6.84	7.53	16.7	19.0	14.9	6.93	8.86	6.60
MAX	13	10	10	8.4	9.7	9.6	24	30	25	11	18	8.3
MIN	8.7	6.7	6.6	5.9	5.9	6.4	8.5	12	8.1	5.1	5.5	5.3
AC-FT	593	554	548	423	380	463	992	1170	887	426	545	393

CAL YR 1980 TOTAL 15848.1 MEAN 43.3 MAX 347 MIN 5.5 AC-FT 31430
WTR YR 1981 TOTAL 3717.2 MEAN 10.2 MAX 30 MIN 5.1 AC-FT 7370

08271000 RIO LUCERO NEAR ARROYO SECO, NM

LOCATION.--Lat 36°30'30", long 105°31'49", Taos County, Hydrologic Unit 13020101, 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.

REVISED RECORDS.--WSP 1512: 1912, 1916, 1949. WSP 1732: Drainage area. WDR NM-75-1: 1973. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Concrete control since Nov. 21, 1962. Datum of gage is 8,051.44 ft (2,454.070 m) National Geodetic Vertical Datum of 1929. See WSP 1923 for history of changes prior to Nov. 21, 1962.

REMARKS.--Records good. No diversions above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--42 years (water years 1911-15, 1934-51, 1963-81), 21.5 ft^3/s (0.609 m^3/s), 15,580 acre-ft/yr (19.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 310 ft^3/s (8.78 m^3/s) June 8, 1979, gage height, 2.33 ft (0.710 m); maximum gage height, 3.12 ft (0.951 m), May 13, 1941, datum then in use; minimum discharge, about 1.4 ft^3/s (0.04 m^3/s) Nov. 2, 1951, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 51 ft^3/s (1.44 m^3/s) June 3, gage height, 1.42 ft (0.433 m), no peak above base of 70 ft^3/s (2.0 m^3/s); minimum, 1.7 ft^3/s (0.048 m^3/s) Jan. 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	7.1	6.2	5.1	5.1	4.6	5.3	27	34	17	11	11
2	8.4	7.5	5.7	5.1	4.8	4.4	5.3	28	34	16	11	10
3	8.3	7.3	6.0	5.0	5.0	4.6	5.0	31	39	15	10	10
4	8.3	7.3	6.1	5.1	4.9	4.4	4.6	30	39	14	9.8	10
5	8.1	7.2	6.0	5.1	4.6	4.4	5.5	28	38	13	9.9	10
6	7.9	7.2	6.2	4.8	4.5	4.4	5.3	25	39	13	10	9.8
7	7.9	7.2	6.2	4.9	4.4	4.4	5.9	23	41	14	12	10
8	8.3	7.1	5.9	4.9	4.2	4.3	5.8	21	44	13	11	11
9	8.2	7.0	5.9	5.1	4.4	4.3	6.7	20	45	13	11	10
10	8.0	6.9	5.6	5.4	4.4	4.3	8.4	18	43	14	11	9.8
11	8.0	6.9	5.9	5.2	4.1	4.4	9.4	18	41	13	19	9.2
12	8.0	6.9	5.9	5.3	4.3	4.4	9.3	17	39	12	19	9.1
13	8.0	7.1	5.9	5.2	4.2	4.4	13	16	36	13	17	9.1
14	7.9	7.1	5.7	4.9	4.3	4.4	11	16	34	12	16	9.2
15	9.5	6.3	5.6	4.6	4.6	4.5	9.2	17	31	13	15	8.8
16	7.7	6.6	5.6	4.2	4.4	4.5	10	19	29	13	15	8.6
17	7.5	6.0	5.6	4.3	4.5	4.4	11	16	26	12	15	9.1
18	7.9	5.7	5.6	4.5	4.6	4.5	12	17	24	12	15	8.8
19	8.1	6.5	5.6	4.3	4.6	4.5	15	19	23	11	14	8.7
20	8.0	6.7	5.4	4.1	4.6	4.4	16	22	21	10	14	8.5
21	8.3	6.5	5.4	3.7	4.5	4.4	16	24	20	10	14	8.2
22	8.1	6.8	5.4	3.0	4.4	4.7	15	26	19	9.8	15	8.1
23	7.8	7.0	5.4	3.1	4.5	4.6	16	26	19	10	14	8.2
24	7.2	7.2	5.2	2.9	4.6	4.6	17	25	19	10	13	8.4
25	7.4	7.4	5.2	2.8	4.6	4.8	18	26	17	9.9	13	8.1
26	7.4	7.1	5.4	2.5	4.5	5.0	19	27	16	11	13	7.8
27	7.6	7.0	5.4	2.3	4.4	5.0	19	29	16	11	12	7.5
28	7.1	7.0	5.3	2.0	4.5	4.7	20	33	15	9.7	12	7.4
29	7.2	6.4	5.3	3.2	---	4.8	22	33	17	9.7	11	7.3
30	7.3	5.9	5.1	3.7	---	4.9	24	32	16	9.9	11	7.4
31	7.3	---	5.2	4.9	---	4.9	---	33	---	11	11	---
TOTAL	245.2	205.9	174.9	131.2	126.5	140.9	359.7	742	874	375.0	404.7	269.1
MEAN	7.91	6.86	5.64	4.23	4.52	4.55	12.0	23.9	29.1	12.1	13.1	8.97
MAX	9.5	7.5	6.2	5.4	5.1	5.0	24	33	45	17	19	11
MIN	7.1	5.7	5.1	2.0	4.1	4.3	4.6	16	15	9.7	9.8	7.3
AC-FT	486	408	347	260	251	279	713	1470	1730	744	803	534

CAL YR 1980 TOTAL 8541.3 MEAN 23.3 MAX 191 MIN 4.0 AC-FT 16940
WTR YR 1981 TOTAL 4049.1 MEAN 11.1 MAX 45 MIN 2.0 AC-FT 8030

08275500 RIO GRANDE DEL RANCHO NEAR TALPA, NM

LOCATION.--Lat 36°17'52", long 105°34'55", Taos County, Hydrologic Unit 13020101, in Carson National Forest, Rancho del Rio Grande Grant, on right 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 mi^2 (210 km^2), 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, nonre cording 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. Nov. 6, 1968 to Aug. 28, 1980, water-stage recorder at present site on left bank at same datum.
REMARKS.--Records good. Minor diversions for irrigation above station. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--29 years, 19.8 ft^3/s (0.561 m^3/s), 14,350 acre-ft/yr (17.7 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 497 ft^3/s (14.1 m^3/s) May 21, 1973, gage height 3.87 ft (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 ft^3/s (0.01 m^3/s) Jan. 5, 1955, result of freezeup.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18 ft^3/s (0.510 m^3/s) May 6, gage height, 0.79 ft (0.241 m), no peak above base of 60 ft^3/s (1.7 m^3/s); minimum, 1.6 ft^3/s (0.045 m^3/s) Feb. 11, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	7.4	6.7	6.0	4.1	5.6	6.7	12	11	6.4	2.4	3.5
2	5.8	7.2	6.4	5.9	4.4	5.6	6.7	15	9.8	5.8	2.3	3.2
3	5.8	7.2	7.0	6.2	5.6	5.7	6.7	17	10	4.7	2.3	2.9
4	5.8	7.1	7.0	5.9	5.2	5.7	6.3	17	11	4.1	2.4	3.0
5	5.5	7.0	7.0	6.0	4.4	5.5	5.6	17	11	3.7	2.2	3.2
6	5.5	7.1	7.0	4.7	4.7	5.7	6.0	18	11	3.8	2.2	3.3
7	5.5	7.0	7.0	5.1	4.4	5.7	6.3	18	9.5	4.3	4.1	3.3
8	5.5	7.0	7.0	6.1	4.6	5.4	6.6	17	8.7	4.4	5.6	3.9
9	5.5	7.0	7.0	5.1	4.9	5.6	6.8	16	8.2	4.7	5.1	4.1
10	5.5	6.8	5.2	4.9	4.5	5.7	7.5	15	7.8	4.6	5.7	3.6
11	5.8	6.6	6.2	5.1	3.8	5.7	8.4	14	7.4	4.2	8.3	3.3
12	5.8	6.5	7.2	5.2	4.9	5.7	9.3	13	6.8	5.2	12	3.9
13	5.8	6.8	6.7	4.3	4.7	5.8	10	12	6.4	5.6	9.0	3.8
14	6.0	7.0	6.3	4.3	4.9	6.1	11	12	6.0	4.6	7.1	4.1
15	8.0	7.3	6.4	4.6	4.9	6.0	10	11	5.8	4.6	5.7	3.6
16	8.4	6.8	6.6	5.4	4.9	6.0	9.4	14	5.6	5.4	5.3	3.3
17	7.6	5.8	6.6	5.2	4.9	6.0	11	14	5.3	5.4	5.1	3.1
18	7.3	4.5	6.4	4.6	5.0	5.8	12	12	5.0	4.6	5.4	3.1
19	7.1	5.0	6.4	3.8	5.2	5.7	12	12	4.8	4.2	5.0	3.0
20	7.1	5.2	6.0	3.9	5.3	6.2	12	11	4.3	3.7	4.7	2.8
21	7.1	5.2	5.9	4.1	5.4	6.3	12	10	3.9	3.2	4.4	2.5
22	7.1	5.2	6.4	5.5	4.7	5.7	12	10	3.4	2.8	5.2	2.4
23	7.0	5.8	6.3	5.9	5.3	6.3	12	10	3.3	2.6	5.0	2.5
24	6.7	6.5	5.5	5.3	5.6	6.3	11	11	3.1	2.4	4.5	2.7
25	6.5	6.4	6.3	4.4	5.5	6.3	11	11	3.0	2.4	4.1	2.6
26	6.6	5.8	6.4	4.2	5.6	6.3	12	10	3.0	2.7	3.8	2.5
27	7.5	5.5	6.2	5.1	5.6	6.3	12	9.6	3.0	2.9	3.7	2.4
28	7.5	6.4	5.9	5.5	5.5	6.7	12	9.4	3.1	2.7	3.9	2.3
29	7.3	6.7	5.7	4.8	---	6.7	12	10	4.8	2.3	3.6	2.2
30	7.2	6.7	5.6	4.2	---	6.7	12	11	4.9	2.4	3.4	2.2
31	7.2	---	5.9	4.6	---	6.7	---	11	---	2.3	3.5	---
TOTAL	203.0	192.5	198.2	155.9	138.5	185.5	288.3	400.0	190.9	122.7	147.0	92.3
MEAN	6.55	6.42	6.39	5.03	4.95	5.98	9.61	12.9	6.36	3.96	4.74	3.08
MAX	8.4	7.4	7.2	6.2	5.6	6.7	12	18	11	6.4	12	4.1
MIN	5.5	4.5	5.2	3.8	3.8	5.4	5.6	9.4	3.0	2.3	2.2	2.2
AC-FT	403	382	393	309	275	368	572	793	379	243	292	183

CAL YR 1980 TOTAL 12798.9 MEAN 35.0 MAX 301 MIN 4.4 AC-FT 25390
WTR YR 1981 TOTAL 2314.8 MEAN 6.34 MAX 18 MIN 2.2 AC-FT 4590

08276300 RIO PUEBLO DE TAOS BELOW LOS CORDOVAS, NM

LOCATION.--Lat 36°22'39", long 105°40'05", Taos County, Hydrologic Unit 13020101, 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 mi^2 (984 km^2).
PERIOD OF RECORD.--March 1957 to current year.
REVISED RECORDS.--WSP 1732: 1957(M). WSP 1923: 1957(P), 1958.
GAGE.--Water-stage recorder. Concrete control since July 16, 1963. Altitude of gage is 6,652 ft (2,028 m), from topographic map.
REMARKS.--Records fair. Diversions for irrigation of about 12,000 acres (49 km^2) above station, of which about 1,700 acres (6.9 km^2) is irrigated by water from Rio Hondo. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--24 years, 51.4 ft^3/s (1.456 m^3/s), 37,240 acre-ft/yr (45.9 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,380 ft^3/s (67.4 m^3/s) Aug. 24, 1957, gage height, 5.80 ft (1.768 m), from rating curve extended above 900 ft^3/s (25 m^3/s); minimum, 1.9 ft^3/s (0.054 m^3/s) July 31, Aug. 1, 1972.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 230 ft^3/s (6.5 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
July 7	1700	268	7.59	2.94	0.896	Aug. 11	1530	*1470	41.6	5.74	1.750
Aug. 11	0430	276	7.82	2.96	.902						

Minimum discharge, 3.2 ft^3/s (0.091 m^3/s) Aug. 3.

REVISIONS.--Two peak discharges and annual maximum (*) for water year 1979 have been revised as shown in the following table. They supersede figures published in WDR NM-79-1.

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 21	1130	1180	33.4	5.02	1.530	June 8	2300	1270	36.0	5.25	1.600
May 26	1745	*1350	38.2	5.44	1.658						

DISCHARGE, IN CUBIC FEET PER SECOND; WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	26	33	34	28	29	25	9.4	12	6.0	5.1	5.6
2	12	26	32	33	32	28	25	11	13	5.7	4.2	5.4
3	12	26	33	34	32	33	27	13	14	4.5	4.0	5.5
4	12	26	33	34	31	33	26	13	15	4.3	4.2	6.2
5	12	26	34	36	30	32	25	17	14	4.2	4.4	6.4
6	11	29	34	33	30	30	25	14	14	4.5	4.4	6.0
7	13	29	34	32	30	28	22	12	14	15	4.4	6.3
8	13	29	34	35	29	27	20	10	13	5.7	4.9	7.7
9	14	29	35	33	30	27	20	9.3	11	10	5.6	8.5
10	13	30	30	32	27	27	19	8.5	8.4	6.4	5.1	7.8
11	12	30	30	33	27	27	18	7.4	8.4	5.8	153	7.6
12	13	30	36	33	31	28	18	7.6	6.9	6.3	16	7.4
13	13	30	36	33	29	27	21	6.9	5.4	6.4	8.2	7.4
14	14	31	35	34	29	28	21	7.5	5.0	5.7	6.3	7.9
15	28	33	34	33	28	29	23	8.5	5.0	5.8	5.9	7.3
16	28	31	35	31	28	28	19	14	4.8	6.4	5.7	7.2
17	25	29	35	31	27	27	18	14	4.4	6.0	5.8	7.3
18	25	26	36	31	27	26	18	12	4.0	6.0	5.7	7.5
19	23	26	35	29	26	26	20	10	4.3	5.9	5.6	7.5
20	23	25	34	29	27	26	21	10	4.3	4.8	4.9	7.2
21	23	26	32	30	27	28	21	11	4.3	4.8	4.6	6.7
22	23	25	34	32	26	28	17	9.8	4.1	4.4	6.4	6.7
23	23	28	35	33	26	27	15	8.8	4.3	4.2	5.8	7.0
24	23	31	32	30	27	28	15	9.1	4.3	4.2	5.7	7.7
25	23	29	33	30	26	27	13	9.2	4.0	4.3	6.3	7.4
26	23	28	34	28	27	25	11	8.2	4.4	5.3	6.6	7.1
27	28	28	35	30	27	24	12	8.2	4.0	5.4	6.6	7.0
28	31	29	35	29	27	27	11	8.7	3.8	4.9	6.4	7.0
29	30	33	34	29	---	29	11	9.9	8.6	4.6	6.6	6.9
30	29	33	33	28	---	28	9.7	10	6.0	4.4	5.7	6.7
31	28	---	33	29	---	27	---	10	---	4.6	5.7	---
TOTAL	612	857	1048	981	791	864	566.7	313.0	228.7	176.5	329.8	209.9
MEAN	19.7	28.6	33.8	31.6	28.3	27.9	18.9	10.1	7.62	5.69	10.6	7.00
MAX	31	33	36	36	32	33	27	14	15	15	153	8.5
MIN	11	25	30	28	26	24	9.7	6.9	3.8	4.2	4.0	5.4
AC-FT	1210	1700	2080	1950	1570	1710	1120	621	454	350	654	416

CAL YR 1980 TOTAL 37161.0 MEAN 102 MAX 975 MIN 11 AC-FT 73710
WTR YR 1981 TOTAL 6977.6 MEAN 19.1 MAX 153 MIN 3.8 AC-FT 13840

08276500 RIO GRANDE BELOW TAOS JUNCTION BRIDGE, NEAR TAOS, NM
(Surveillance network station)

LOCATION.--Lat 36°19'12", long 105°45'14", in NW¼NE¼ sec. 15, T.24 N., R.11 E., Taos County, Hydrologic Unit 13020101, 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 mi^2 (25,200 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

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.
REVISED RECORDS.--WSP 788: 1934(M). WSP 828: Drainage area. WSP 1392: 1931-32, 1935, 1937, 1945, 1950.
GAGE.--Water-stage recorder. Datum of gage is 6,050.3 ft (1,844.1 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 14, 1934, at bridge 1.7 mi (2.7 km) upstream at different datum.
REMARKS.--Water-discharge records good. Diversions above station for irrigation of about 620,000 acres (2,500 km^2) in Colorado and 30,000 acres (120 km^2) in New Mexico.
AVERAGE DISCHARGE.--56 years, 718 ft^3/s (20.33 m^3/s), 520,200 acre-ft/yr (641 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,730 ft^3/s (276 m^3/s) June 7, 1948, gage height, 9.18 ft (2.798 m), and June 22, 1949, gage height, 9.23 ft (2.813 m); minimum, 155 ft^3/s (4.39 m^3/s) Sept. 21, 1956.
EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1888, about 14,000 ft^3/s (400 m^3/s) June 19, 1903, from records for Rio Grande at Embudo and estimated inflow. Other floods exceeding 10,000 ft^3/s (280 m^3/s) occurred June 9, 1905, May 28, 1920, and June 16, 1921, from comparison of records for stations near Lobatos and at Embudo.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,400 ft^3/s (125 m^3/s) at 1700 hours Aug. 11, gage height, 7.11 ft (2.167 m), no other peak above base of 1,600 ft $^3/s$ (45 m^3/s); minimum, 194 ft^3/s (5.49 m^3/s) Oct. 6, 7, 10-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	203	232	445	480	422	468	301	331	247	224	289	239
2	203	234	488	478	376	458	285	323	288	234	276	247
3	200	235	488	481	356	475	272	344	276	232	261	262
4	200	238	501	482	394	489	265	337	305	240	255	280
5	198	235	540	480	389	490	256	300	288	251	240	294
6	196	236	546	478	394	481	250	336	278	273	239	273
7	198	235	540	478	400	467	234	322	272	361	308	269
8	198	235	534	442	393	457	220	307	266	276	326	282
9	198	233	508	402	411	460	216	260	266	266	241	276
10	196	230	433	391	418	462	215	242	257	270	273	271
11	195	226	366	412	382	455	214	225	290	248	647	277
12	195	227	366	411	379	460	225	216	278	235	305	281
13	194	235	398	410	387	459	239	220	316	223	279	282
14	196	234	421	411	420	467	228	226	334	236	278	293
15	236	237	469	390	418	472	228	219	333	275	298	283
16	236	235	488	382	437	467	223	229	382	333	342	279
17	224	247	469	376	444	464	221	247	337	310	308	289
18	223	269	501	369	466	457	219	254	299	307	285	300
19	218	360	508	396	512	460	228	255	284	306	284	291
20	216	366	508	410	512	458	226	274	280	295	282	273
21	218	344	494	419	503	456	243	281	260	276	281	269
22	220	349	469	414	485	455	252	269	243	261	293	262
23	217	360	437	418	479	460	280	261	251	237	282	274
24	217	376	479	426	472	463	246	252	237	227	276	274
25	217	415	486	430	463	443	239	248	223	215	263	258
26	215	386	460	409	467	427	247	249	226	214	261	249
27	226	404	465	403	465	394	255	246	218	230	256	247
28	229	410	500	416	468	378	284	242	220	218	258	245
29	229	410	516	412	---	372	338	235	227	260	256	254
30	233	433	527	415	---	351	345	235	220	266	249	269
31	230	---	521	411	---	321	---	218	---	283	242	---
TOTAL	6574	8866	14871	13132	12112	13846	7494	8203	8201	8082	8933	8142
MEAN	212	296	480	424	433	447	250	265	273	261	288	271
MAX	236	433	546	482	512	490	345	344	382	361	647	300
MIN	194	226	366	369	356	321	214	216	218	214	239	239
AC-FT	13040	17590	29500	26050	24020	27460	14860	16270	16270	16030	17720	16150

CAL YR 1980 TOTAL 343334 MEAN 938 MAX 4310 MIN 194 AC-FT 681000
WTR YR 1981 TOTAL 118456 MEAN 325 MAX 647 MIN 194 AC-FT 235000

08276500 RIO GRANDE BELOW TAOS JUNCTION BRIDGE, NEAR TAOS, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1975 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)
OCT										
08...	0800	198	323	8.0	--	12.0	.30	8.4	--	110
NOV										
18...	0730	245	355	8.3	-8.0	4.0	2.4	9.8	--	120
JAN										
08...	1030	404	240	8.1	5.0	3.0	28	11.4	--	89
FEB										
18...	1430	482	240	8.2	12.0	7.0	3.7	11.2	--	92
MAR										
10...	1730	462	275	8.2	7.0	7.0	2.8	9.1	--	98
APR										
09...	0945	216	310	8.4	--	11.0	2.4	--	--	120
MAY										
12...	0830	216	332	8.3	15.0	13.0	1.9	9.5	21	130
JUN										
09...	1315	264	320	8.2	--	21.0	2.1	10.2	--	130
JUL										
15...	1000	269	328	8.5	--	20.0	16	8.6	--	120
AUG										
11...	1130	366	225	8.3	--	19.0	760	6.9	74	81

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)
OCT										
08...	7	--	31	7.1	25	1.1	3.0	--	--	100
NOV										
18...	6	--	34	7.6	26	1.1	3.5	120	0	98
JAN										
08...	5	--	27	5.2	16	.7	2.7	120	0	98
FEB										
18...	9	--	28	5.3	16	.7	2.7	96	0	79
MAR										
10...	8	15	30	5.5	18	.8	3.0	110	0	90
APR										
09...	12	25	37	7.4	26	1.0	3.4	130	1	108
MAY										
12...	32	29	39	7.2	24	.9	3.6	120	0	98
JUN										
09...	18	26	38	7.5	24	.9	3.8	120	8	112
JUL										
15...	15	32	37	6.8	22	.9	3.5	120	4	105
AUG										
11...	0	4.0	25	4.6	18	.9	3.2	150	0	123

08276500 RIO GRANDE BELOW TAOS JUNCTION BRIDGE, NEAR TAOS, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	ALKALINITY LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)
OCT										
08...	--	44	7.3	.8	27	207	207	.17	.27	.000
NOV										
18...	110	52	7.7	.7	27	227	226	.22	.22	.000
JAN										
08...	84	35	4.6	.5	27	--	170	.36	.36	.110
FEB										
18...	83	38	4.3	.4	27	--	173	.34	.31	.070
MAR										
10...	83	44	5.2	.5	26	--	183	.23	.26	.010
APR										
09...	98	56	7.7	.8	28	--	226	.22	.22	.080
MAY										
12...	98	71	6.5	.7	26	--	238	.15	.10	.060
JUN										
09...	100	64	6.7	.7	25	--	231	.13	.17	.140
JUL										
15...	88	65	6.2	.6	28	--	222	.04	.03	.100
AUG										
11...	77	31	10	.6	24	--	164	.29	.31	.200

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT									
08...	1.4	1.6	.040	.040	--	<10	20	7.4	--
NOV									
18...	.81	1.0	.010	.000	60	<10	20	1.9	.00
JAN									
08...	.30	.77	.080	.060	20	--	--	7.7	.00
FEB									
18...	.50	.91	.090	.050	30	--	--	--	.00
MAR									
10...	.56	.80	.100	.050	30	--	--	4.6	.00
APR									
09...	.59	.89	.060	.020	40	--	--	3.4	.00
MAY									
12...	.31	.52	.070	.000	40	--	--	5.4	.00
JUN									
09...	.08	.35	.070	.020	40	--	--	6.8	.00
JUL									
15...	.25	.39	.050	.050	30	20	30	3.6	.00
AUG									
11...	.00	.29	.320	.130	50	--	--	29	<.01

08279000 EMBUDO CREEK AT DIXON, NM

LOCATION.--Lat 36°12'39", long 105°54'47", in NE¼SE¼ sec.19, T.23 N., R.10 E., Rio Arriba County, Hydrologic Unit 13020101, 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).

WATER-DISCHARGE RECORDS

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.
REVISED RECORDS.--WSP 1512: 1931-32, 1941, 1947(M). See also PERIOD OF RECORD.
GAGE.--Water-stage recorder. Datum of gage is 5,858.60 ft (1,785.701 m) National Geodetic Vertical Datum of 1929. 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.
REMARKS.--Water-discharge records good. Diversions above station for irrigation of about 6,500 acres (26 km^2), a small part of which is below gage.
AVERAGE DISCHARGE.--50 years (water years 1924-25, 1927-55, 1963-81), 76.5 ft^3/s (2.166 m^3/s), 55,420 acre-ft/yr (68.3 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD (SINCE 1941).--Maximum discharge, 4,200 ft^3/s (119 m^3/s) Aug. 29, 1977, gage height, 7.10 ft (2.164 m), from rating curve extended above 1,600 ft^3/s (45 m^3/s); maximum gage height, 7.6 ft (2.32 m) Aug. 4, 1967; minimum discharge, 0.06 ft^3/s (0.002 m^3/s) June 26, 27, 1950.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 236 ft^3/s (6.68 m^3/s) Aug. 12, gage height, 3.42 ft (1.042 m), no peak above base of 800 ft^3/s (23 m^3/s); minimum, 4.4 ft^3/s (0.12 m^3/s) June 28, July 3, 4, 5, 7, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	30	34	25	18	17	19	33	8.3	8.4	5.6	16
2	13	31	31	25	16	17	21	41	8.4	8.7	5.2	16
3	13	31	31	27	21	20	22	40	8.2	4.6	5.4	12
4	13	30	31	27	23	19	19	43	8.7	4.5	5.3	11
5	13	28	31	30	21	16	16	37	9.0	4.8	6.1	17
6	12	28	30	23	21	19	15	36	9.9	4.8	6.6	17
7	11	28	30	21	21	19	13	32	9.7	4.5	6.1	17
8	11	27	30	24	18	17	13	27	9.0	4.9	5.7	23
9	12	25	29	23	24	18	15	23	7.7	5.8	6.5	29
10	11	25	23	21	23	18	16	20	6.8	5.5	11	23
11	12	25	23	21	15	20	15	16	6.8	4.9	35	21
12	11	26	29	22	23	20	15	11	6.6	4.8	170	17
13	11	28	32	20	20	19	18	8.5	6.6	5.3	112	16
14	10	29	30	18	23	20	26	7.6	6.9	6.0	81	16
15	22	29	27	18	22	19	26	7.6	6.6	6.1	67	15
16	25	28	28	21	23	19	18	9.0	6.3	8.1	65	12
17	25	27	28	25	22	19	21	9.0	6.3	8.3	54	14
18	25	24	28	25	22	17	26	11	6.4	8.3	51	13
19	25	26	28	23	21	18	35	11	6.2	7.2	47	13
20	23	27	24	20	20	20	33	12	6.2	6.9	40	14
21	22	27	25	20	19	19	29	10	5.9	5.8	34	13
22	22	26	28	20	16	16	28	9.0	6.1	6.2	30	13
23	25	30	30	22	18	18	26	9.6	5.8	7.6	24	14
24	24	34	24	23	18	19	27	9.0	4.9	7.3	21	15
25	25	31	26	21	17	19	26	8.0	4.9	5.5	20	15
26	25	28	30	20	18	20	25	8.0	4.9	5.8	19	13
27	28	26	30	21	17	19	27	7.8	4.8	6.4	15	12
28	28	28	30	23	15	22	28	7.6	4.7	5.9	15	13
29	28	34	30	23	---	21	28	7.6	4.9	6.2	14	12
30	28	35	25	19	---	22	30	7.7	4.9	5.9	12	12
31	30	---	25	25	---	20	---	7.9	---	5.6	15	---
TOTAL	596	851	880	696	555	586	676	526.9	202.4	190.6	1004.5	464
MEAN	19.2	28.4	28.4	22.5	19.8	18.9	22.5	17.0	6.75	6.15	32.4	15.5
MAX	30	35	34	30	24	22	35	43	9.9	8.7	170	29
MIN	10	24	23	18	15	16	13	7.6	4.7	4.5	5.2	11
AC-FT	1180	1690	1750	1380	1100	1160	1340	1050	401	378	1990	920

CAL YR 1980 TOTAL 43849.9 MEAN 120 MAX 880 MIN 9.5 AC-FT 86980
WTR YR 1981 TOTAL 7228.4 MEAN 19.8 MAX 170 MIN 4.5 AC-FT 14340

08279000 EMBUDO CREEK AT DIXON, NM -- Continued

WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
FEB											
24...	0850	18	404	8.2	--	2.0	190	--	65	7.4	11
MAR											
25...	1400	20	386	8.3	--	14.0	--	--	--	--	--
APR											
24...	1300	31	322	8.2	--	17.0	--	--	--	--	--
MAY											
27...	1310	8.0	420	8.3	26.0	22.5	190	4.0	66	7.1	14
JUN											
26...	1215	5.1	460	8.2	32.0	23.0	--	--	--	--	--
JUL											
27...	1300	5.7	415	8.3	26.0	23.5	--	--	--	--	--
AUG											
25...	1300	20	420	8.3	28.5	22.0	200	15	66	7.4	11
SEP											
24...	0920	15	460	8.1	17.5	15.0	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
FEB										
24...	.3	1.3	170	26	5.8	.3	14	233	20	<10
MAR										
25...	--	--	--	--	--	--	--	--	--	--
APR										
24...	--	--	--	--	--	--	--	--	--	--
MAY										
27...	.4	2.4	190	29	12	.4	15	260	30	<10
JUN										
26...	--	--	--	--	--	--	--	--	--	--
JUL										
27...	--	--	--	--	--	--	--	--	--	--
AUG										
25...	.4	1.6	180	27	12	.4	16	250	30	75
SEP										
24...	--	--	--	--	--	--	--	--	--	--

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
MAY					
27...	1310	8.0	22.5	22	.48

08279500 RIO GRANDE AT EMBUDO, NM

LOCATION.--Lat 36°12'20", long 105°57'49", in SW¼SW¼ sec.23, T.23 N., R.9 E., Rio Arriba County, Hydrologic Unit 13020101, 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 mi^2 (26,940 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.

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.

REVISED RECORDS.--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.

GAGE.--Water-stage recorder. Datum of gage is 5,789.14 ft (1,764.530 m) National Geodetic Vertical Datum of 1929. 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 (60 m) upstream at present datum.

REMARKS.--Records good. Diversions above station for irrigation of about 620,000 acres (2,500 km^2) in Colorado and 40,000 acres (160 km^2) in New Mexico. Several observations of water temperature were made during the year. National Weather Service gage-height telemeter at station.

AVERAGE DISCHARGE.--41 years (water years 1890-1930), 1,238 ft^3/s (35.06 m^3/s), 896,900 acre-ft/yr (1.11 km^3/yr); 51 years (water years 1931-81), 775 ft^3/s (21.95 m^3/s), 561,500 acre-ft/yr (692 hm^3/yr), subsequent to upstream development.

EXTREMES FOR PERIOD OF RECORD (1889-1903 AND SINCE 1911).--Maximum discharge, 16,200 ft^3/s (459 m^3/s) June 19, 1903, gage height, about 15.9 ft (4.85 m); minimum daily, 130 ft^3/s (3.68 m^3/s) June 30, 1902. A flood of about 14,000 ft^3/s (400 m^3/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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,930 ft^3/s (83.0 m^3/s) at 2115 hours Aug. 11, gage height, 6.50 ft (1.981 m), no other peak above base of 2,000 ft^3/s (57 m^3/s); minimum, 206 ft^3/s (5.83 m^3/s) Oct. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	224	272	511	521	442	490	324	368	241	231	299	259
2	224	272	550	513	411	482	310	368	295	238	287	259
3	224	274	549	503	367	499	297	370	284	239	273	271
4	222	275	574	511	417	510	286	381	305	236	268	284
5	222	272	620	514	410	509	276	338	301	254	254	314
6	218	270	610	508	413	507	271	356	285	266	248	292
7	217	266	622	490	422	493	255	355	277	314	263	284
8	218	264	608	488	415	481	239	339	269	323	388	301
9	219	260	590	457	436	480	237	290	271	272	248	310
10	217	258	485	403	442	484	234	265	257	276	352	292
11	216	258	432	437	410	480	231	249	280	254	628	297
12	213	260	391	436	409	483	238	233	281	244	541	298
13	211	268	426	425	398	478	262	229	296	233	416	296
14	211	269	459	432	439	485	260	240	325	238	371	301
15	261	272	512	417	442	493	261	233	324	261	369	297
16	280	263	539	407	458	485	247	241	362	330	411	289
17	259	274	527	420	468	485	244	256	342	319	382	296
18	260	286	544	395	480	474	248	268	301	309	348	311
19	254	387	570	413	528	477	263	267	282	308	343	305
20	251	408	560	426	536	478	260	279	283	307	328	289
21	248	386	530	445	530	478	259	290	265	284	321	276
22	247	379	534	436	505	470	283	278	248	274	327	271
23	249	395	477	434	498	476	295	276	251	255	316	277
24	247	428	483	447	495	483	281	265	243	243	304	285
25	248	456	515	454	485	470	267	257	227	230	291	272
26	249	442	501	436	488	445	272	260	228	227	286	258
27	264	432	490	430	487	420	283	257	221	237	278	254
28	274	465	517	432	485	401	303	255	223	234	280	258
29	267	480	547	438	---	395	349	246	225	257	274	261
30	271	476	562	438	---	377	373	246	236	275	268	272
31	267	---	542	441	---	348	---	236	---	286	263	---
TOTAL	7452	9967	16377	13947	12716	14516	8208	8791	8228	8254	10225	8529
MEAN	240	332	528	450	454	468	274	284	274	266	330	284
MAX	280	480	622	521	536	510	373	381	362	330	628	314
MIN	211	258	391	395	367	348	231	229	221	227	248	254
AC-FT	14780	19770	32480	27660	25220	28790	16280	17440	16320	16370	20280	16920

CAL YR 1980 TOTAL 388714 MEAN 1062 MAX 4960 MIN 211 AC-FT 771000
WTR YR 1981 TOTAL 127210 MEAN 349 MAX 628 MIN 211 AC-FT 252300

08281100 RIO GRANDE ABOVE SAN JUAN PUEBLO, NM

LOCATION.--Lat 36°03'58", long 106°04'34", in NE¼SE¼ sec.10, T.21 N., R.8 E., Rio Arriba County, Hydrologic Unit 13020101, 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 Espanola, and at mile 1,630.1 (2,622.8 km).

DRAINAGE AREA.--10,550 mi^2 (27,320 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.

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.

REMARKS.--Records good. Diversions above station for irrigation of about 620,000 acres (2,500 km^2) in Colorado and 42,000 acres (170 km^2) in New Mexico. Several observations of water temperature were made during the year. San Juan lateral (station 08280100) and San Juan Pueblo ditch (station 08280200), both on left bank, and Guique ditch (station 08280700), on right bank, bypass gage for irrigation of several hundred acres below station. See tabulation below for monthly diversion, as furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--18 years, 697 ft^3/s (19.74 m^3/s), 505,000 acre-ft/yr (623 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,220 ft^3/s (233 m^3/s) June 9, 1979, gage height, 6.94 ft (2.115 m); minimum, 92 ft^3/s (2.61 m^3/s) Aug. 10-11, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--For years of outstanding floods see records for Rio Grande at Embudo (station 08279500).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,620 ft^3/s (74.2 m^3/s) at 2345 hours Aug. 11, gage height, 3.73 ft (1.137 m), no other peak above base of 2,000 ft^3/s (57 m^3/s); minimum, 155 ft^3/s (4.39 m^3/s) Apr. 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	177	265	518	572	462	498	303	319	199	215	251	218
2	181	271	547	534	430	493	294	337	255	233	247	202
3	181	271	562	519	370	510	277	328	261	233	228	212
4	189	271	596	536	429	520	268	332	279	230	212	330
5	188	267	635	543	430	520	259	292	275	244	202	354
6	184	264	632	531	429	520	252	292	258	241	189	309
7	183	264	659	502	437	502	236	310	249	256	198	296
8	175	253	634	522	432	491	214	276	232	339	345	310
9	176	257	616	486	448	488	209	244	225	258	237	324
10	171	253	496	400	456	489	206	215	207	255	326	310
11	176	247	441	449	425	489	183	201	201	231	437	308
12	174	249	376	446	413	488	170	173	218	209	748	309
13	177	255	422	434	393	482	198	165	252	185	430	305
14	184	255	447	438	442	487	218	165	278	174	359	306
15	215	267	493	424	456	495	241	175	267	187	348	310
16	263	256	525	417	461	488	230	196	308	262	374	296
17	253	268	528	419	473	486	226	213	323	309	353	291
18	240	282	535	389	479	480	223	215	272	296	298	301
19	241	368	574	412	535	480	235	222	251	289	279	296
20	239	403	573	427	549	486	226	245	242	283	270	285
21	237	397	539	452	547	483	220	273	243	246	258	266
22	253	394	571	446	515	475	236	252	213	217	262	252
23	243	411	507	443	508	476	226	248	207	207	268	256
24	241	434	485	470	504	482	220	233	205	211	253	278
25	249	452	543	481	492	469	202	211	181	210	236	270
26	253	455	537	461	493	447	202	202	186	208	225	256
27	266	428	511	451	495	433	216	194	184	216	225	246
28	287	477	528	454	492	407	211	202	177	210	224	246
29	277	488	578	469	---	393	262	202	191	199	220	238
30	273	482	598	460	---	364	324	207	211	216	215	252
31	267	---	561	458	---	331	---	203	---	218	221	---
TOTAL	6813	9904	16767	14445	12995	14652	6987	7342	7050	7287	8938	8432
MEAN	220	330	541	466	464	473	233	237	235	235	288	281
MAX	287	488	659	572	549	520	324	337	323	339	748	354
MIN	171	247	376	389	370	331	170	165	177	174	189	202
AC-FT	13510	19640	33260	28650	25780	29060	13860	14560	13980	14450	17730	16720
(†)	31	---	---	---	---	---	36	56	60	36	66	26
(††)	256	---	---	---	---	---	466	1300	1020	381	331	684
(‡)	413	---	---	---	---	---	133	517	221	203	195	208

CAL YR 1980 TOTAL 373359 MEAN 1020 MAX 4700 MIN 169 AC-FT 740600
WTR YR 1981 TOTAL 121612 MEAN 333 MAX 748 MIN 165 AC-FT 241200

† Estimated diversion, in acre-feet, by San Juan lateral.
†† Estimated diversion, in acre-feet, by San Juan Pueblo ditch.
‡ Diversion, in acre-feet, by Guique ditch.

08284100 RIO CHAMA NEAR LA PUENTE, NM

LOCATION.--Lat 36°39'45", long 106°37'57", Rio Arriba County, Hydrologic Unit 13020102, 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.
REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 10,300 acres (42 km^2) above station (1962 determination). Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--26 years, 313 ft^3/s (8.864 m^3/s), 226,800 acre-ft/yr (280 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,200 ft^3/s (317 m^3/s) May 28, 1979, gage height, 6.35 ft (1.935 m), from rating extended above 5,400 ft^3/s (153 m^3/s); minimum, 4.0 ft^3/s (0.11 m^3/s) Sept. 19, 1956.
EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of about 9,000 ft^3/s (250 m^3/s) occurred Apr. 16, 1937, based on flow of Rio Chama at Los Ojos (Park View) with allowance for tributary inflow. A peak on May 21 or 22, 1926, may have exceeded 10,000 ft^3/s (280 m^3/s).
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,770 ft^3/s (50.1 m^3/s) Apr. 25, gage height, 4.38 ft (1.335 m), no peak above base of 2,000 ft^3/s (57 m^3/s); minimum, 6.3 ft^3/s (0.18 m^3/s) Feb. 11, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	73	62	53	40	62	63	1100	581	70	38	48
2	43	73	51	51	37	58	74	1020	455	88	38	46
3	42	73	55	53	38	62	79	1550	436	73	36	40
4	43	71	53	48	40	58	73	1120	520	55	31	38
5	43	71	59	55	40	55	58	849	393	42	29	50
6	41	73	62	50	40	63	71	716	380	39	26	71
7	43	75	62	45	42	55	83	573	377	33	40	68
8	46	77	55	50	39	52	90	475	358	37	35	73
9	45	75	55	50	45	55	104	402	323	53	69	77
10	43	73	48	50	49	58	147	369	280	71	69	68
11	40	73	50	50	26	58	196	325	229	69	72	62
12	40	71	60	48	30	58	231	247	201	60	95	86
13	40	75	64	45	35	56	262	231	172	48	81	92
14	48	84	60	48	38	60	344	206	149	40	66	86
15	77	66	53	45	40	63	303	219	120	45	56	75
16	82	55	57	48	42	60	341	349	104	43	50	64
17	62	60	57	48	44	61	611	426	89	45	48	69
18	60	50	57	50	45	54	791	396	76	53	48	73
19	64	51	57	37	50	53	747	663	63	45	49	68
20	68	51	53	35	56	61	796	795	58	34	47	59
21	71	51	51	36	54	58	755	668	49	26	37	53
22	68	48	55	38	46	57	877	565	46	22	39	47
23	66	55	60	40	50	64	968	462	38	23	49	39
24	60	60	55	40	50	67	1080	399	34	25	48	59
25	59	48	51	33	47	64	1220	376	31	23	43	66
26	62	60	55	33	54	67	1230	367	28	38	42	57
27	71	46	57	40	55	78	1170	355	29	52	56	52
28	71	45	55	48	49	73	1080	397	29	47	55	45
29	68	55	57	43	---	67	1040	376	36	39	67	42
30	66	62	50	26	---	70	1170	412	46	36	57	41
31	73	---	53	45	---	62	---	399	---	37	48	---
TOTAL	1749	1900	1729	1381	1221	1889	16054	16807	5730	1411	1564	1814
MEAN	56.4	63.3	55.8	44.5	43.6	60.9	535	542	191	45.5	50.5	60.5
MAX	82	84	64	55	56	78	1230	1550	581	88	95	92
MIN	40	45	48	26	26	52	58	206	28	22	26	38
AC-FT	3470	3770	3430	2740	2420	3750	31840	33340	11370	2800	3100	3600

CAL YR 1980 TOTAL 187270 MEAN 512 MAX 5190 MIN 37 AC-FT 371400
WTR YR 1981 TOTAL 53249 MEAN 146 MAX 1550 MIN 22 AC-FT 105600

08284160 AZOTEA TUNNEL AT OUTLET, NEAR CHAMA, NM

LOCATION.--Lat 36°51'12", long 106°40'18", Rio Arriba County, Hydrologic Unit 13020102, 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) National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).
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.
AVERAGE DISCHARGE.--11 years, 130 ft^3/s (3.682 m^3/s), 94,180 acre-ft/yr (116 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,170 ft^3/s (33.1 m^3/s) May 17, 1978, gage height, 7.85 ft (2.393 m); no flow many days most years.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 985 ft^3/s (27.9 m^3/s) May 3, gage height, 7.05 ft (2.149 m); minimum daily, 0.08 ft^3/s (0.002 m^3/s) Dec. 27-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.29	.33	.23	.14	.14	.14	.14	411	506	112	9.1	27
2	.23	.33	.23	.14	.14	.14	.14	572	479	229	12	8.4
3	.23	.23	.23	.14	.14	.14	.15	886	566	102	8.5	5.1
4	.23	.23	.23	.14	.14	.14	.63	657	475	66	4.8	3.5
5	.23	.23	.23	.14	.14	.14	.64	481	450	50	3.0	12
6	.23	.23	.23	.14	.14	.14	2.2	352	561	41	1.5	75
7	.23	.23	.23	.14	.14	.14	29	235	672	68	.84	17
8	.23	.23	.23	.14	.14	.14	29	169	717	69	5.4	13
9	.23	.23	.14	.14	.14	.14	42	119	702	130	26	16
10	.23	.23	.14	.14	.14	.14	98	112	679	86	13	7.0
11	.23	.23	.14	.14	.14	.14	147	114	668	110	46	4.8
12	.23	.23	.14	.14	.14	.14	138	80	537	69	58	28
13	.23	.23	.14	.14	.14	.14	130	67	442	46	20	12
14	13	.23	.14	.14	.14	.14	136	66	356	62	13	16
15	.93	.23	.14	.14	.14	.14	129	92	247	61	8.0	10
16	.33	.23	.14	.14	.14	.14	124	132	185	53	12	8.4
17	.33	.23	.14	.14	.14	.14	213	134	169	109	16	10
18	.33	.23	.14	.14	.14	.14	260	159	159	87	19	44
19	.33	.23	.14	.14	.14	.14	258	275	143	73	36	16
20	.33	.23	.14	.14	.14	.14	259	309	147	50	28	12
21	.33	.23	.14	.14	.14	.14	226	245	146	31	16	7.0
22	.33	.23	.14	.14	.14	.14	272	214	139	21	17	4.6
23	.33	.23	.14	.14	.14	.14	308	201	123	23	15	2.3
24	.33	.23	.14	.14	.14	.14	346	207	98	42	7.3	59
25	.33	.23	.14	.14	.14	.14	385	227	89	31	5.1	29
26	.33	.23	.14	.14	.14	.14	414	279	82	20	19	18
27	.33	.23	.08	.14	.14	.14	395	333	76	42	7.3	12
28	.33	.23	.08	.14	.14	.14	393	471	63	21	7.7	6.7
29	.33	.23	.08	.14	---	.14	397	416	66	13	16	.69
30	.33	.23	.08	.14	---	.14	420	403	86	10	13	.23
31	.33	---	.14	.14	---	.14	---	464	---	7.7	12	---
TOTAL	22.26	7.10	4.82	4.34	3.92	4.34	5551.90	8882	9828	1934.7	475.54	484.72
MEAN	.72	.24	.16	.14	.14	.14	185	287	328	62.4	15.3	16.2
MAX	13	.33	.23	.14	.14	.14	420	886	717	229	58	75
MIN	.23	.23	.08	.14	.14	.14	.14	66	63	7.7	.84	.23
AC-FT	44	14	9.6	8.6	7.8	8.6	11010	17620	19490	3840	943	961

CAL YR 1980 TOTAL 72407.00 MEAN 198 MAX 1080 MIN .00 AC-FT 143600
WTR YR 1981 TOTAL 27203.64 MEAN 74.5 MAX 886 MIN .08 AC-FT 53960

08284200 WILLOW CREEK ABOVE HERON RESERVOIR, NEAR LOS OJOS, NM

LOCATION.--Lat 36°44'33", long 106°37'34", Rio Arriba County, Hydrologic Unit 13020102, 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 Los Ojos, 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. Published as "near Park View" prior to 1976.
GAGE.--Water-stage recorder. Concrete control since June 6, 1963. Datum of gage is 7,196.29 ft (2,193.429 m) National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to Apr. 1, 1971, at site 900 ft (270 m) downstream at lower datum.
REMARKS.--Records represent inflow to Heron Reservoir and since Nov. 17, 1970, include San Juan River water imported through Azotea tunnel (station 08284160).
COOPERATION.--Records furnished by Bureau of Reclamation.
AVERAGE DISCHARGE.--8 years (water years 1963-70), 10.5 ft^3/s (0.297 m^3/s), 7,610 acre-ft/yr (9.38 hm^3/yr), prior to completion of Azotea tunnel; 11 years (water years 1971-81), 141 ft^3/s (3.993 m^3/s), 102,200 acre-ft/yr (126 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,600 ft^3/s (45.3 m^3/s) Aug. 11, 1967, gage height, 3.88 ft (1.182 m), site and datum then in use, prior to completion of Azotea tunnel; no flow at times most years prior to 1971.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 952 ft^3/s (27.0 m^3/s) May 3, gage height, 4.52 ft (1.378 m); minimum daily, 0.07 ft^3/s (0.002 m^3/s) Oct. 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	.23	.20	.19	.08	.45	1.4	397	488	117	10	27
2	.27	.20	.19	.18	.10	.52	.88	514	471	232	12	11
3	.26	.20	.19	.18	.10	1.3	1.2	818	552	113	9.0	15
4	.23	.19	.20	.16	.10	1.1	2.0	662	483	75	6.2	17
5	.21	.16	.22	.16	.10	.67	1.3	466	420	57	4.1	4.8
6	.20	.16	.27	.15	.10	.72	.67	359	520	43	1.9	91
7	.15	.15	.34	.15	.11	.63	16	262	653	50	41	24
8	.11	.15	.26	.13	.10	.45	30	191	700	84	19	15
9	.10	.13	.23	.12	.12	.40	39	137	700	52	84	16
10	.10	.13	.18	.13	.13	.40	97	123	679	93	30	10
11	.08	.13	.13	.13	.10	.49	158	127	608	120	28	6.2
12	.07	.15	.13	.12	.10	.88	155	91	533	84	92	30
13	.07	.20	.18	.11	.16	.88	137	82	429	55	29	18
14	.60	.26	.21	.11	.18	1.4	156	75	358	56	15	17
15	5.2	.26	.19	.11	.22	1.4	137	92	269	73	9.5	12
16	12	.23	.18	.12	.26	1.5	130	140	210	59	9.0	9.0
17	2.5	.25	.18	.15	.30	1.6	204	156	188	100	22	9.2
18	1.6	.20	.18	.15	.34	1.1	266	146	180	96	16	39
19	1.4	.19	.18	.13	.34	.63	249	293	165	80	25	20
20	.96	.18	.15	.12	.45	.45	265	330	162	59	32	15
21	.76	.16	.13	.12	.45	.63	233	269	158	34	16	8.6
22	.59	.13	.13	.13	.32	.67	269	237	148	22	16	4.8
23	.36	.13	.18	.15	.40	.56	292	226	129	23	17	3.2
24	.26	.20	.13	.13	.32	.67	334	229	106	36	9.5	52
25	.20	.21	.12	.11	.27	.80	358	245	93	36	5.4	36
26	.20	.23	.13	.10	.26	1.2	393	278	88	20	15	22
27	.23	.19	.18	.11	.36	1.5	382	306	85	39	9.5	14
28	.30	.19	.19	.13	.30	1.9	371	455	73	26	11	8.6
29	.36	.16	.19	.11	---	1.3	380	402	63	14	18	4.3
30	.32	.18	.18	.13	---	.76	410	371	90	11	12	1.3
31	.27	---	.19	.12	---	.80	---	444	---	8.6	10	---
TOTAL	30.26	5.52	5.74	4.14	6.17	27.76	5468.45	8923	9801	1967.6	634.1	561.0
MEAN	.98	.18	.19	.13	.22	.90	182	288	327	63.5	20.5	18.7
MAX	12	.26	.34	.19	.45	1.9	410	818	700	232	92	91
MIN	.07	.13	.12	.10	.08	.40	.67	75	63	8.6	1.9	1.3
AC-FT	60	11	11	8.2	12	55	10850	17700	19440	3900	1260	1110

CAL YR 1980 TOTAL 81629.85 MEAN 223 MAX 1220 MIN .07 AC-FT 161900
WTR YR 1981 TOTAL 27434.74 MEAN 75.2 MAX 818 MIN .07 AC-FT 54420

08284300 HORSE LAKE CREEK ABOVE HERON RESERVOIR, NEAR LOS OJOS, NM

LOCATION.--Lat 36°42'24", long 106°44'42", Rio Arriba County, Hydrologic Unit 13020102, 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 Los Ojos.
DRAINAGE AREA.--45 mi^2 (120 km^3), approximately.
PERIOD OF RECORD.--October and November 1962 (monthly discharge only), December 1962 to current year. No winter records subsequent to 1973. Published as "near Park View" prior to 1976.
GAGE.--Water-stage recorder. Concrete control since June 10, 1963. Datum of gage is 7,188.85 ft (2,191.161 m) National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to July 1, 1971, at site 1,100 ft (340 m) upstream at higher datums.
REMARKS.--Diversions above station for irrigation of meadows and for off-channel stock tanks.
COOPERATION.--Records furnished by Bureau of Reclamation.
AVERAGE DISCHARGE.--11 years (water years 1963-73), 1.10 ft^3/s (0.031 m^3/s), 797 acre-ft/yr (983,000 m^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,960 ft^3/s (112 m^3/s) July 30, 1968, gage height, 4.9 ft (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.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7.1 ft^3/s (0.20 m^3/s) Oct. 14, gage height, 1.20 ft (0.366 m), no peak above base of 100 ft^3/s (2.8 m^3/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.12					.10	.00	.13	.01	.00	.00
2	.06	.11					.07	.01	.09	.00	.00	.00
3	.03	.10					.12	.00	.05	.00	.00	.00
4	.16	.09					.14	.00	.04	.00	.00	.00
5	.48	.09					.07	.00	.03	.00	.00	.00
6	.18	.09					.06	.00	.01	.00	.00	.00
7	.06	.09					.05	.00	.00	.00	.00	.00
8	.03	.08					.03	.09	.00	.00	.00	.00
9	.02	.07					.01	.30	.00	.00	.07	.00
10	.02	.07					.00	.33	.00	.00	.11	.00
11	.02	.07					.00	.33	.00	.00	.17	.00
12	.02	.08					.01	.45	.00	.00	.12	.00
13	.01	.12					.20	.48	.00	.00	.00	.00
14	.89	.20					.08	.30	.00	.00	.00	.00
15	2.0	.18					.14	.14	.00	.00	.00	.00
16	.84	.16					.28	1.3	.00	.00	.00	.00
17	.61	.18					.10	1.8	.00	.00	.00	.00
18	.33	.12					.10	1.1	.00	.00	.00	.00
19	.22	.10					.20	.80	.00	.00	.00	.00
20	.12	.07					.10	.80	.00	.00	.00	.00
21	.10	.07					.05	1.0	.00	.00	.00	.00
22	.09	.07					.02	.92	.00	.00	.00	.00
23	.07	.07					.01	.48	.00	.00	.00	.00
24	.06	.12					.00	.22	.00	.00	.00	.00
25	.06	.16					.00	.18	.00	.00	.00	.00
26	.10	---					.00	.09	.00	.00	.00	.00
27	.28	---					.00	.04	.00	.00	.00	.00
28	.33	---					.00	.02	.00	.00	.00	.00
29	.33	---					.00	.00	.01	.00	.00	.00
30	.22	---					.00	.05	.02	.00	.00	.00
31	.18	---					---	.04	---	.00	.00	---
TOTAL	8.06	---					1.94	11.27	.38	.01	.47	.00
MEAN	.26	---					.065	.36	.013	.000	.015	.000
MAX	2.0	---					.28	1.8	.13	.01	.17	.00
MIN	.01	---					.00	.00	.00	.00	.00	.00
AC-FT	16	---					3.8	22	.8	.02	.9	.00

08284510 HERON RESERVOIR NEAR LOS OJOS, NM

LOCATION.--Lat 36°39'56", long 106°42'13", Rio Arriba County, Hydrologic Unit 13020102, 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 Los Ojos.
DRAINAGE AREA.--193 mi^2 (500 km^2).
PERIOD OF RECORD.--October 1970 to current year. Published as "near Park View" prior to 1976.
GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to Mar. 24, 1971, nonrecording gage.
REMARKS.--Reservoir is formed by earthfill dam; storage began Oct. 21, 1970. Total capacity 401,300 acre-ft (495 hm^3) at elevation 7,186.1 ft (2,190.32 m), low point on crest of uncontrolled spillway, including 1,340 acre-ft (1.65 hm^3) 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.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 367,900 acre-ft (454 hm^3) July 17, 1980, elevation, 7,180.30 ft (2,188.555 m); no storage prior to Oct. 21, 1970.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 351,600 acre-ft (434 hm^3) July 20-22, elevation, 7,177.36 ft (2,187.659 m); minimum, 309,800 acre-ft (382 hm^3) Apr. 6-9; minimum elevation, 7,169.44 ft (2,185.245 m) Apr. 7.

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

7,160	263,900	7,180	366,200
7,170	312,600		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	346200	343300	342200	316700	311600	311000	310000	319700	334500	349900	327200	327000
2	346100	343300	342200	315600	311500	311200	310000	321000	335400	350300	335000	325900
3	346000	343300	342200	314600	311400	311200	310000	322600	336600	350500	333600	325900
4	345900	343200	342100	313600	311400	311200	309900	323800	337500	350600	333600	325700
5	345900	343200	342200	313100	311400	311200	309900	324700	338400	350600	333600	325100
6	345800	343100	342200	313100	311300	311200	309800	325400	337400	350600	333500	325900
7	345700	343100	342200	313100	311300	311200	309800	325700	340600	350700	333400	325900
8	345600	343000	342200	313100	311300	311100	309800	325900	341900	350700	333400	325900
9	345200	343000	340900	313000	311300	311100	309800	326000	343200	350700	333700	325900
10	344900	342900	338500	313000	311200	311000	310000	326100	344400	350300	333900	325800
11	344800	342900	336300	313000	311200	311000	310200	326100	345500	350600	333900	325800
12	344700	342900	334100	313000	311200	311000	310500	326200	346500	350700	333800	325800
13	344500	342800	331900	312600	311200	310900	310900	326300	347200	350700	333300	325700
14	344500	342800	329700	312600	311100	311100	311000	326400	347600	350800	333200	325800
15	344500	342800	327500	312600	311100	311100	311200	326600	347900	351000	333000	325600
16	344400	342700	325300	312500	311100	311100	311300	327000	348200	351100	332900	325300
17	344300	342700	323800	312500	311100	310900	311700	327200	348100	351300	332700	325200
18	344200	342700	321000	312400	311000	310800	312600	327500	348200	351400	332700	325300
19	344200	342500	319800	312200	311200	310800	312800	328000	348400	351500	332600	325200
20	344100	342500	319300	312200	311100	310800	313300	328500	348700	351600	332700	325200
21	344000	342500	318700	312200	311100	310700	313600	329000	348900	351600	332700	325100
22	343900	342400	318400	312100	311000	310700	314200	329400	349200	351300	331900	325100
23	343900	342400	318400	312000	310900	310600	314600	329700	349300	351200	330300	324800
24	343800	342500	318400	312000	310800	310500	315200	329900	349400	350600	329100	324900
25	343800	342500	318400	311900	310900	310400	315900	330200	349300	348900	328000	324800
26	343700	342500	318400	311900	310900	310400	316500	330600	348900	347100	327700	324800
27	343700	342400	318400	311800	310900	310300	317100	331100	348900	345300	327200	324700
28	343600	342400	318400	311800	310900	310200	317900	331300	349000	343400	327100	324700
29	343400	342300	318400	311700	---	310100	318200	331800	349500	341500	327100	324700
30	343400	342300	318300	311700	---	310100	319000	332500	349600	339900	327100	324500
31	343400	---	317700	311700	---	310000	---	333500	---	338400	327000	---
MAX	346200	343300	342200	316700	311600	311200	319000	333500	349600	351600	335000	327000
MIN	343400	342300	317700	311700	310800	310000	309800	319700	334500	338400	327000	324500
(†)	7175.85	7175.65	7170.98	7169.81	7169.67	7169.49	7171.24	7174.01	7177.00	7174.93	7172.78	7172.30
(‡)	-2800	-1100	-24600	-6000	-800	-900	+9000	+14500	+16100	-11200	-11400	-2500

CAL YR 1980 MAX 367900 MIN 239100 ‡ -74000
WTR YR 1981 MAX 351600 MIN 309800 ‡ -21700

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

08284520 WILLOW CREEK BELOW HERON DAM, NM

LOCATION.--Lat 36°39'56", long 106°42'13", Rio Arriba County, Hydrologic Unit 13020102, 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 Los Ojos.
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.
REMARKS.--Flow regulated by Heron Reservoir (station 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.
AVERAGE DISCHARGE.--10 years, 103 ft^3/s (2.917 m^3/s), 74,620 acre-ft/yr (92.0 hm^3/yr).
EXTREMES FOR 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.
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,230 ft^3/s (34.8 m^3/s) Aug. 2; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	521	10	.00	.00	.00	.00	.00	755	.00
2	.00	.00	.00	519	10	.00	.00	.00	.00	.00	1230	.00
3	.00	.00	.00	518	10	.00	.00	.00	.00	.00	526	.00
4	.00	.00	.00	518	10	.00	.00	.00	.00	.00	.00	184
5	.00	.00	.00	262	9.0	.00	.00	.00	14	.00	.00	335
6	.00	.00	.00	.00	6.0	.00	.00	.00	25	.00	79	172
7	.00	.00	.00	.00	.00	.00	.00	.00	25	46	80	.00
8	87	.00	.00	.00	.00	.00	.00	33	25	152	.00	.00
9	146	.00	615	.00	.00	13	.00	57	24	179	.00	.00
10	80	.00	1150	.00	.00	25	.00	57	24	75	25	.00
11	35	.00	1140	.00	.00	25	.00	22	16	.00	44	.00
12	35	.00	1140	.00	.00	25	.00	.00	10	.00	255	.00
13	35	.00	1140	188	.00	10	10	.00	10	.00	214	.00
14	35	.00	1140	.00	.00	.00	75	15	10	.00	44	.00
15	17	.00	1140	.00	.00	.00	58	25	4.0	.00	44	119
16	.00	.00	1140	.00	.00	15	12	25	.00	.00	44	85
17	.00	.00	1140	.00	.00	27	8.0	25	250	.00	19	.00
18	.00	.00	1130	.00	.00	27	.00	25	.00	.00	.00	.00
19	.00	.00	591	.00	13	27	.00	12	.00	.00	.00	.00
20	.00	.00	280	.00	25	27	.00	.00	.00	19	.00	.00
21	.00	.00	280	.00	25	27	12	.00	.00	109	.00	.00
22	.00	.00	120	.00	25	27	19	32	18	.00	504	45
23	.00	.00	.00	6.0	24	27	19	70	38	.00	816	28
24	.00	.00	.00	11	10	27	19	70	43	522	815	.00
25	.00	.00	.00	10	.00	27	19	70	162	977	572	.00
26	.00	.00	.00	10	.00	27	19	70	202	977	196	.00
27	.00	.00	.00	10	.00	28	30	103	.00	1030	119	.00
28	78	.00	.00	10	.00	28	111	250	.00	1070	15	.00
29	55	.00	53	10	---	28	68	135	.00	966	.00	22
30	.00	.00	311	10	---	12	.00	.00	.00	893	.00	13
31	.00	---	.00	10	---	.00	---	.00	---	364	.00	---
TOTAL	603.00	.00	12510.00	2613.00	177.00	479.00	479.00	1096.00	900.00	7379.00	6396.00	1003.00
MEAN	19.5	.000	404	84.3	6.32	15.5	16.0	35.4	30.0	238	206	33.4
MAX	146	.00	1150	521	25	28	111	250	250	1070	1230	335
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	1200	.00	24810	5180	351	950	950	2170	1790	14640	12690	1990

CAL YR 1980 TOTAL 44523.20 MEAN 122 MAX 1150 MIN .00 AC-FT 88310
WTR YR 1981 TOTAL 33635.00 MEAN 92.2 MAX 1230 MIN .00 AC-FT 66720

08285000 EL VADO RESERVOIR NEAR TIERRA AMARILLA, NM

LOCATION.--Lat 36°35'39", long 106°44'00", Rio Arriba County, Hydrologic Unit 13020102, 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 mi^2 (2,261 km^2), of which about 100 mi^2 (260 km^2) 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) National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by rockfill dam, steel faced. Storage began in January 1935. Capacity 196,500 acre-ft (242 hm^3) 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 hm^3) 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 ft^3/s (50 m^3/s) to about 6,000 ft^3/s (170 m^3/s).

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 204,900 acre-ft (253 hm^3), of which 7,400 acre-ft (9.12 hm^3) was uncontrolled storage, June 4, 5, 1948, gage height, 6,904.2 ft (2,104.40 m); no storage at times prior to December 1966.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 126,100 acre-ft (155 hm^3) May 18, gage height, 6,878.13 ft (2,096.454 m); minimum, 78,800 acre-ft (97.2 hm^3) Aug. 25, gage height, 6,855.63 ft (2,089.596 m).

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

6,850	69,160
6,860	86,770
6,870	107,000
6,880	130,800

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94030	85390	85560	107800	107700	107800	107600	125100	123700	92120	79020	79430
2	92750	85280	85510	107700	107700	107900	107600	124800	123200	92180	80040	79410
3	91440	85360	85490	107700	107800	107900	107600	125400	122700	92220	80990	79380
4	90190	85450	85510	107700	107800	107800	107600	125200	122400	92220	80810	79220
5	88930	85560	85520	107700	107800	107700	107600	125100	122200	92180	80760	79130
6	87630	85600	85560	107800	107800	107700	107600	125300	122200	91690	80700	79240
7	86640	85580	85610	107800	107800	107700	107500	125300	122200	91020	80680	79290
8	86100	85580	85580	107900	107800	107700	107600	125300	122100	90760	80670	79320
9	85670	85580	86660	107900	107900	107700	107600	125400	122000	90660	81300	79310
10	85450	85560	88940	107900	107800	107700	107700	125400	122000	90440	81260	79270
11	85410	85580	91150	107900	107700	107700	107800	125300	122000	90130	81040	79270
12	85390	85580	93380	107900	107700	107800	108100	125100	121300	89740	81120	79290
13	85380	85580	95640	108000	107700	107700	107800	125100	120000	89500	81080	79320
14	85470	85610	97870	107800	107800	107800	106800	125200	118700	89480	81080	79340
15	85490	85600	100100	107800	107800	107800	106200	125300	117200	89550	81060	79270
16	85510	85560	102200	107800	107800	107800	105600	125700	115900	89520	81030	79180
17	85510	85540	104500	107800	107800	107700	105500	125900	115000	89420	80950	79160
18	85520	85510	106800	107800	107700	107700	106100	125900	113400	89400	80950	79180
19	85580	85470	107700	107800	107700	107700	106400	126000	111600	89370	80940	79150
20	85580	85610	107700	107800	107700	107700	107400	125900	109500	88390	80950	79110
21	85520	85510	107700	107800	107700	107700	108600	125400	107400	86560	80220	79040
22	85470	85470	107700	107700	107700	107700	110200	125200	105000	84580	79410	79020
23	85410	85470	107800	107700	107700	107700	111800	125000	103000	82420	79150	78980
24	85430	85520	107800	107700	107700	107700	113400	124900	101100	81150	78880	79000
25	85490	85520	107900	107700	107700	107700	115000	125100	99200	80790	78860	79040
26	85580	85520	107900	107700	107700	107700	116600	125100	97280	80490	79240	79060
27	85630	85510	107900	107700	107700	107700	118300	125200	95260	80380	79590	79040
28	85690	85510	107900	107700	107700	107700	120100	125300	93650	80540	79510	79000
29	85650	85540	108000	107800	---	107700	122000	125000	93060	80720	79460	78980
30	85580	85560	108000	107800	---	107800	124100	124400	92340	80720	79500	78970
31	85510	---	107900	107800	---	107700	---	123900	---	79590	79480	---
MAX	94030	85610	108000	108000	107900	107900	124100	126000	123700	92220	81300	79430
MIN	85380	85280	85490	107700	107700	107700	105500	123900	92340	79590	78860	78970
(†)	6859.32	6859.35	6870.39	6870.35	6870.34	6870.34	6877.32	6877.26	6862.91	6856.07	6856.01	6855.72
(‡)	-9770	+50	+22340	-100	-100	0	+16400	-200	-31560	-12750	-110	-510

CAL YR 1980 MAX 124900 MIN 85280 ‡ -15300
WTR YR 1981 MAX 126000 MIN 78860 ‡ -16310

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

08285500 RIO CHAMA BELOW EL VADO DAM, NM

LOCATION:--Lat 36°34'48", long 106°43'24", Rio Arriba County, Hydrologic Unit 13020102, 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 mi^2 (2,271 km^2), of which about 100 mi^2 (260 km^2) 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.

REVISED RECORDS.--WSP 1312: 1914, 1949. WSP 1392: 1949.

GAGE.--Water-stage recorder. Datum of gage is 6,696.12 ft (2,040.977 m) National Geodetic Vertical Datum of 1929. 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.

REMARKS.--Records good. Flow regulated by El Vado Reservoir (station 08285000) since 1935. Flow affected by release of transmountain water from Heron Reservoir (station 08284510) since May 1971. Diversions for irrigation of about 10,600 acres (43 km^2) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--5 years (water years 1914-15, 1921-23) 448 ft^3/s (12.69 m^3/s), 324,600 acre-ft/yr (400 hm^3/yr), prior to completion of El Vado Dam; 35 years (water years 1936-70), 373 ft^3/s (10.56 m^3/s), 270,200 acre-ft/yr (333 hm^3/yr), prior to release of transmountain water; 11 years (water years 1971-81), 391 ft^3/s (11.07 m^3/s), 283,300 acre-ft/yr (349 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,000 ft^3/s (255 m^3/s) May 22, 1920, gage height, 12 ft (3.7 m), site and datum then in use, from rating curve extended above 3,500 ft^3/s (99 m^3/s); no flow Mar. 25, 26, 31, 1955. Maximum discharge since construction of El Vado Dam in 1935, 6,010 ft^3/s (170 m^3/s) May 17, 1941, gage height, 6.89 ft (2.100 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 4 or 5, 1911, was greater than floods in September 1904 and May 1920, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,300 ft^3/s (36.8 m^3/s) June 22, gage height, 3.88 ft (1.183 m); minimum, 16 ft^3/s (0.45 m^3/s) Dec. 22-24, Jan 5-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	679	107	65	563	60	45	116	546	680	203	1010	49
2	679	107	76	548	53	61	89	1170	677	52	725	44
3	672	60	65	534	43	95	68	1170	672	51	101	42
4	672	20	54	534	45	91	74	1170	674	51	113	250
5	672	20	54	278	49	74	75	878	513	63	42	425
6	672	45	54	16	46	71	76	617	396	252	106	193
7	508	67	54	16	43	67	76	547	392	380	130	40
8	390	67	76	16	42	67	76	444	392	326	38	48
9	390	67	87	28	42	67	76	385	370	257	60	75
10	244	67	54	41	79	69	96	385	320	254	187	75
11	78	67	44	42	70	74	116	385	256	254	255	56
12	81	67	58	42	26	89	116	328	516	253	289	58
13	81	67	56	167	38	85	475	242	815	158	346	58
14	84	67	56	153	49	67	846	179	812	50	107	73
15	83	67	53	43	49	69	751	195	805	43	107	197
16	83	67	49	38	49	90	656	240	805	60	112	190
17	65	67	43	38	68	112	614	294	798	67	91	69
18	42	67	33	38	86	104	571	429	856	53	66	71
19	40	52	172	42	86	94	571	600	976	52	53	76
20	61	38	294	45	86	86	327	782	1090	525	38	76
21	86	47	294	47	86	86	107	863	1100	1060	385	68
22	81	56	173	45	86	88	107	713	1240	1070	952	81
23	76	56	16	43	83	88	107	583	1110	1110	947	78
24	47	56	29	43	66	88	246	485	984	1150	944	40
25	27	52	40	43	47	88	401	380	1100	1150	601	40
26	27	51	40	42	47	88	401	395	1140	1150	33	52
27	38	49	40	45	47	88	304	417	1030	1080	52	52
28	106	49	40	43	47	88	203	537	856	991	92	52
29	144	49	47	45	---	88	159	679	401	891	75	65
30	104	49	81	52	---	88	113	682	396	886	49	65
31	113	---	368	60	---	103	---	686	---	1010	49	---
TOTAL	7125	1767	2665	3730	1618	2558	8013	17406	22172	14952	8155	2758
MEAN	230	58.9	86.0	120	57.8	82.5	267	561	739	482	263	91.9
MAX	679	107	368	563	86	112	846	1170	1240	1150	1010	425
MIN	27	20	16	16	26	45	68	179	256	43	33	40
AC-FT	14130	3500	5290	7400	3210	5070	15890	34520	43980	29660	16180	5470

CAL YR 1980 TOTAL 241744 MEAN 661 MAX 4640 MIN 16 AC-FT 479500
WTR YR 1981 TOTAL 92919 MEAN 255 MAX 1240 MIN 16 AC-FT 184300

08286500 RIO CHAMA ABOVE ABIQUIU RESERVOIR, NM

LOCATION.--Lat 36°19'06", long 106°35'50", Rio Arriba County, Hydrologic Unit 13020102, 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 mi^2 (4,144 km^2), of which about 100 mi^2 (260 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

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.

REMARKS.--Water-discharge records good. Flow regulated by El Vado Reservoir (station 08285000). Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510). Diversions for irrigation of about 15,000 acres (61 km^2) above station.

AVERAGE DISCHARGE.--9 years (water years 1962-70), 358 ft^3/s (10.14 m^3/s), 259,400 acre-ft/yr (320 hm^3/yr), prior to release of transmountain water; 11 years (water years 1971-81), 419 ft^3/s (11.87 m^3/s), 303,600 acre-ft/yr (374 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,550 ft^3/s (185 m^3/s) May 20, 1973, gage height, 8.70 ft (2.652 m); minimum 7.5 ft^3/s (0.21 m^3/s) Oct. 17, 18, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods probably occurred on Sept. 29, 1904, Oct. 4 or 5, 1911, and May 22, 1920.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,340 ft^3/s (66.3 m^3/s) July 10, gage height, 5.65 ft (1.722 m); minimum, 9.3 ft^3/s (0.26 m^3/s) Feb. 11, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	653	124	58	556	61	56	114	190	674	528	962	62
2	657	119	73	556	61	55	120	1210	680	244	950	65
3	663	118	81	536	60	87	83	1210	675	70	189	59
4	660	66	67	538	54	127	73	1220	684	58	153	51
5	661	33	59	515	53	95	76	1090	620	53	93	508
6	659	31	63	93	54	95	76	627	406	66	52	319
7	596	50	63	31	53	78	75	594	397	365	194	123
8	389	76	62	25	45	73	73	478	392	391	174	69
9	391	76	87	25	51	71	74	384	381	371	142	71
10	383	76	86	30	45	72	75	378	334	446	404	97
11	119	76	57	48	73	78	106	376	291	311	462	72
12	88	77	49	53	62	98	117	367	261	318	218	79
13	86	78	62	52	37	115	183	286	770	277	443	79
14	87	79	62	251	44	91	818	207	777	165	147	67
15	120	77	62	82	53	80	810	157	775	145	125	87
16	92	77	57	53	56	82	658	243	776	93	121	259
17	87	79	52	53	58	102	642	252	776	87	121	123
18	66	77	48	49	83	115	567	378	799	73	88	98
19	48	75	37	45	93	98	582	496	897	62	73	88
20	48	58	264	48	92	94	537	698	1070	90	55	79
21	73	46	304	51	90	95	147	850	1070	982	43	74
22	90	53	307	53	89	94	126	791	1230	1010	834	69
23	81	61	100	52	89	93	126	568	1170	1030	888	94
24	79	63	30	50	89	90	128	545	1010	1110	888	80
25	54	62	31	46	67	89	390	371	1010	1110	872	55
26	38	58	47	43	53	90	412	372	1210	1120	146	50
27	41	56	49	50	55	92	405	409	1030	1080	78	48
28	50	55	49	55	52	97	239	435	1030	943	195	48
29	161	55	49	54	---	94	235	659	445	894	179	48
30	123	56	55	50	---	95	152	672	474	756	79	62
31	123	---	141	60	---	91	---	669	---	950	62	---
TOTAL	7466	2087	2611	4203	1772	2782	8219	17182	22114	15198	9430	3083
MEAN	241	69.6	84.2	136	63.3	89.7	274	554	737	490	304	103
MAX	663	124	307	556	93	127	818	1220	1230	1120	962	508
MIN	38	31	30	25	37	55	73	157	261	53	43	48
AC-FT	14810	4140	5180	8340	3510	5520	16300	34080	43860	30150	18700	6120

CAL YR 1980 TOTAL 268925 MEAN 735 MAX 4760 MIN 30 AC-FT 533400
WTR YR 1981 TOTAL 96147 MEAN 263 MAX 1230 MIN 25 AC-FT 190700

08286500 RIO CHAMA ABOVE ABIQUIU RESERVOIR, NM -- Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1969 to December 1974.
WATER TEMPERATURES: October 1962 to December 1974.
SUSPENDED SEDIMENT DISCHARGES: October 1962 to December 1974.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT							
28...	1245	47	560	7.0	259	33	--
NOV							
26...	1220	57	413	3.5	8	1.2	--
DEC							
22...	1135	297	319	4.0	70	56	99
JAN							
21...	1000	42	485	1.0	10	1.1	--
FEB							
18...	1400	91	584	6.0	667	164	100
MAR							
19...	1300	93	414	7.5	249	63	--
APR							
16...	1615	660	331	11.0	214	381	--
MAY							
13...	1110	292	329	12.0	36	28	99
JUN							
11...	1215	282	304	17.5	33	25	82
JUL							
08...	1105	387	322	18.5	2040	2130	--
AUG							
05...	1125	72	357	23.0	89	17	98
SEP							
03...	1245	56	555	19.5	273	41	99
29...	1200	49	552	19.0	70	9.3	--

08286900 ABIQUIU RESERVOIR NEAR ABIQUIU, NM

LOCATION.--Lat 36°14'24", long 106°25'44", Rio Arriba County, Hydrologic Unit 13020102, 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 mi^2 (5,558 km^2), of which about 100 mi^2 (260 km^2) is probably noncontributing.

PERIOD OF RECORD.--February 1963 to September 1965 (monthend contents only), October 1965 to current year. October 1969 to December 1975, contents at 0800 hours.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam, completed Feb. 5, 1963. Capacity, 1,215,000 acre-ft (1.50 km^3) 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, 1976. No dead storage. Reservoir is used for flood control and, since March 1976, for recreation. A desilting pool of about 2,000 acre-ft (2.5 hm^3) was maintained from May 1968 to 1974, when it was increased to 4,000 acre-ft (4.9 hm^3) and continued until December 1975.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 205,300 acre-ft (253 hm^3) June 22, 1973, elevation, 6,219.93 ft (1,895.835 m); no storage at times prior to May 1968 and Jan. 11 to Mar. 25, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 133,400 acre-ft (164 hm^3) Oct. 1, elevation, 6,202.35 ft (1,890.476 m); minimum, 35,910 acre-ft (44.3 hm^3) Sept. 26, elevation 6,161.70 ft (1,878.086 m).

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Corps of Engineers in 1978)

6,160	33,350	6,200	125,400
6,170	49,900	6,220	199,900
6,180	70,600		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	133200	131200	80090	40780	40450	40100	40100	38840	38570	37750	36740	36540
2	133000	129700	78510	40860	40410	40120	40190	39590	38470	37460	36710	36360
3	132900	128000	77070	40790	40460	40250	40090	39440	38440	37430	36480	36190
4	132800	126400	75610	40680	40560	40290	39880	39130	38360	37320	36620	36110
5	132700	125000	74160	40560	40540	40290	39920	39150	38280	37340	36650	36790
6	132700	123000	72760	40350	40510	40290	39990	38940	38270	37400	36640	36700
7	132700	120900	71470	40430	40460	40250	40020	38890	38330	37460	36700	36340
8	132700	119000	70550	40490	40400	40250	40020	38780	38300	37370	37120	36310
9	132700	117100	69730	40530	40450	40220	40000	38730	38330	37360	37260	36300
10	132700	115300	68990	40540	40380	40210	40000	38760	38380	37620	37250	36300
11	132700	113600	67860	40580	40350	40210	40070	38810	38380	37830	37540	36310
12	132600	111800	66370	40610	40430	40220	40160	38890	38110	37780	36920	36340
13	132400	110000	64760	40540	40400	40250	40090	38870	38330	37460	36820	36390
14	132300	108100	63250	40730	40410	40320	40680	38810	38230	37620	36650	36280
15	132500	106100	61740	40540	40450	40270	40320	38830	38220	37640	36650	36110
16	132500	104400	60370	40380	40940	40250	40040	38840	38190	37260	36640	36360
17	132500	102700	59170	40430	40510	40190	40040	38860	37940	37230	36660	36200
18	132500	100800	57990	40490	40560	40100	39920	38830	37840	37260	36620	36190
19	132500	99000	56600	40510	40600	40040	39830	38540	37940	37280	36560	36160
20	132500	97310	55570	40490	40610	40020	39720	38730	37960	37130	36510	36200
21	132400	95700	54640	40510	40580	40000	39350	38810	37750	37490	36280	36140
22	132400	94090	53750	40490	40540	39990	39310	38570	37760	37070	36700	36060
23	132400	92570	52500	40490	40530	40020	39310	38280	37680	36980	36660	36120
24	132400	91170	51200	40490	40510	40040	39310	38440	37570	36980	36600	36140
25	132400	89800	49740	40460	40450	40050	39570	38440	37360	36960	36700	36000
26	132400	88030	48440	40410	40350	40100	39620	38490	37520	37050	36510	35960
27	132400	86450	47540	40430	40320	40050	39600	38630	37320	36990	36510	35960
28	132400	84890	45910	40480	40190	40020	39370	38490	37260	36840	36500	35960
29	132500	83290	44550	40510	---	39960	39350	38550	37150	36780	36240	36020
30	132300	81680	42080	40510	---	40020	39150	38590	37620	36680	36310	35980
31	132200	---	40320	40510	---	40040	---	38550	---	36840	36660	---
MAX	133200	131200	80090	40860	40940	40320	40680	39590	38570	37830	37540	36790
MIN	132200	81680	40320	40350	40190	39960	39150	38280	37150	36680	36240	35960
(†)	6202.00	6184.65	6164.48	6164.60	6164.40	6164.31	6163.76	6163.39	6162.80	6162.30	6162.19	6161.75
(‡)	-1200	-50520	-41360	+190	-320	-150	-890	-600	-930	-780	-180	-680

CAL YR 1980 MAX 198300 MIN 40320 ‡a -1700
WTR YR 1981 MAX 133200 MIN 35960 ‡ -97420

† 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, 1980.

08287000 RIO CHAMA BELOW ABIQUIU DAM, NM

LOCATION.--Lat 36°14'12", long 106°24'59", in SE¼SE¼ sec.8, T.23 N., R.5 E., Rio Arriba County, Hydrologic Unit 13020102, 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 mi^2 (5,561 km^2), of which about 100 mi^2 (260 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

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.
REMARKS.--Water-discharge records good. Flow controlled by El Vado Reservoir (station 08285000) 46.4 mi (74.7 km) upstream and Abiquiu Reservoir (station 08286900) 0.8 mi (1.3 km) upstream. Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510) 54.5 mi (87.7 km) upstream. Diversions for irrigation of about 17,600 acres (71 km^2) above station. Corps of Engineers gage-height telemeter at station.
AVERAGE DISCHARGE.--9 years (water years 1962-70), 384 ft^3/s (10.87 m^3/s), 278,200 acre-ft/yr (343 hm^3/yr), prior to release of transmountain water; 11 years (water years 1971-81), 444 ft^3/s (12.57 m^3/s), 321,700 acre-ft/yr (397 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,990 ft^3/s (84.7 m^3/s) July 1, 1965, gage height, 6.69 ft (2.039 m), datum then in use; maximum gage height, 7.29 ft (2.222 m) Jan. 14, 1967 (backwater from ice); minimum discharge, about 0.5 ft^3/s (0.01 m^3/s) Mar. 17, 1966, Jan. 28, 1972.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,540 ft^3/s (43.6 m^3/s) May 3-4, gage height, 4.53 ft (1.381 m); minimum, 1.1 ft^3/s (0.031 m^3/s) Jan 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	697	555	932	450	79	102	79	331	710	532	995	136
2	760	945	892	561	70	84	79	858	726	380	995	155
3	682	964	863	637	45	66	162	1330	737	103	406	152
4	661	897	861	642	28	102	142	1400	741	92	50	87
5	659	725	834	636	53	102	59	1140	685	57	81	433
6	629	1070	786	248	81	97	49	767	463	45	47	427
7	541	1120	783	18	81	89	62	658	389	290	89	315
8	427	1010	616	18	74	89	70	539	407	446	130	91
9	381	1010	498	18	60	89	89	425	383	378	65	87
10	299	1010	498	29	70	89	102	382	322	322	436	86
11	171	1010	617	35	60	95	102	361	299	348	602	77
12	161	1030	856	49	47	100	109	339	331	390	557	68
13	143	1050	911	107	47	103	194	300	666	389	518	59
14	103	1050	911	130	47	104	582	251	803	234	245	119
15	79	1040	862	201	47	102	997	189	779	221	124	148
16	52	1040	803	121	47	102	831	226	786	294	124	216
17	26	1030	733	42	47	134	668	254	887	100	104	208
18	25	1030	697	42	60	139	668	386	877	48	101	102
19	25	1030	766	49	86	139	668	637	838	47	96	89
20	61	985	820	64	101	116	625	607	1030	105	68	66
21	106	929	820	48	103	113	351	798	1150	753	140	87
22	73	897	820	62	102	103	169	936	1190	1190	563	107
23	68	897	790	62	102	84	156	699	1190	1070	897	89
24	43	923	739	63	103	84	139	503	1050	1090	897	96
25	25	925	734	63	104	82	264	393	1070	1110	838	98
26	25	881	733	62	104	82	407	365	1100	1110	328	57
27	25	883	732	45	103	112	450	365	1100	1110	89	45
28	25	904	730	44	102	129	378	477	1040	1020	211	43
29	93	933	916	46	---	112	256	675	606	940	266	44
30	256	932	1290	54	---	79	282	698	322	806	66	66
31	142	---	947	79	---	79	---	722	---	883	66	---
TOTAL	7463	28705	24790	4725	2053	3102	9189	18011	22677	15903	10194	3853
MEAN	241	957	800	152	73.3	100	306	581	756	513	329	128
MAX	760	1120	1290	642	104	139	997	1400	1190	1190	995	433
MIN	25	555	498	18	28	66	49	189	299	45	47	43
AC-FT	14800	56940	49170	9370	4070	6150	18230	35720	44980	31540	20220	7640

CAL YR 1980 TOTAL 282840 MEAN 773 MAX 2240 MIN 25 AC-FT 561000
WTR YR 1981 TOTAL 150665 MEAN 413 MAX 1400 MIN 18 AC-FT 298800

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1969 to December 1974.
WATER TEMPERATURES: October 1962 to December 1974.
SUSPENDED SEDIMENT DISCHARGES: October 1962 to December 1974.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT							
28...	1445	24	361	12.0	211	14	--
NOV							
26...	1400	878	297	7.0	12	28	--
DEC							
22...	1330	825	371	5.5	14	31	99
JAN							
21...	1200	2.1	470	4.0	16	.09	--
FEB							
18...	1200	50	468	4.5	32	4.3	--
MAR							
19...	1000	134	451	8.0	13	4.7	--
APR							
17...	1140	676	540	9.5	12	22	--
MAY							
13...	1415	290	388	18.0	118	92	100
JUN							
11...	1435	295	385	16.0	35	28	98
JUL							
08...	1430	360	295	17.0	85	83	--
AUG							
05...	1430	170	496	23.0	96	44	99
SEP							
03...	1515	148	461	19.0	89	36	99
28...	1340	44	497	19.5	74	8.8	--

08289000 RIO OJO CALIENTE AT LA MADERA, NM

LOCATION.--Lat 36°20'59", long 106°02'37", in NW¼NE¼ sec. 1, T.24 N., R.8 E., Rio Arriba County, Hydrologic Unit 13020102, 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.
REVISED RECORDS.--WSP 1712: 1959.
GAGE.--Water-stage recorder. Datum of gage is 6,358.84 ft (1,938.174 m) National Geodetic Vertical Datum of 1929. 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.
REMARKS.--Records good. Diversions above station for irrigation of about 3,500 acres (14 km^2), 1962 determination. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--49 years, 66.6 ft^3/s (1.886 m^3/s), 48,250 acre-ft/yr (59.5 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,140 ft^3/s (88.9 m^3/s) Apr. 21, 1958, gage height, 6.42 ft (1.957 m), from rating curve extended above 1,300 ft^3/s (37 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.
EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Apr. 21, 1958, may have been exceeded by a flood in May 1920, from information by local resident.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 276 ft^3/s (7.82 m^3/s) Sept. 24, gage height, 4.33 ft (1.320 m), no peak above base of 600 ft^3/s (17 m^3/s); minimum, 2.6 ft^3/s (0.074 m^3/s) July 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	11	16	15	12	16	16	98	53	6.4	3.9	11
2	3.8	11	15	15	12	15	15	91	64	6.5	4.2	7.8
3	4.2	11	15	15	12	18	16	108	41	6.1	4.2	8.6
4	4.4	12	15	15	12	16	17	94	53	6.2	4.2	8.9
5	4.6	12	16	15	12	14	16	61	39	6.1	4.4	9.8
6	4.6	11	17	14	13	16	16	63	37	5.8	4.4	10
7	4.7	11	16	12	13	14	15	52	30	6.1	4.4	8.9
8	4.9	11	17	13	13	14	17	41	22	6.5	6.1	7.7
9	5.0	11	16	13	14	14	20	35	18	6.6	5.1	8.1
10	5.9	11	13	13	14	15	26	23	15	6.4	8.5	8.3
11	7.1	11	15	13	12	15	36	21	13	6.4	7.2	7.7
12	7.5	11	17	14	13	15	46	23	11	6.1	7.4	8.3
13	7.2	12	18	13	12	15	56	20	9.9	6.5	7.8	8.2
14	7.3	13	17	12	12	16	97	17	8.6	7.1	7.8	8.1
15	9.6	14	15	12	13	14	74	16	7.9	6.2	7.6	9.2
16	9.8	13	17	13	13	17	83	19	8.2	6.1	7.6	8.8
17	10	13	17	15	14	16	152	28	8.2	5.7	6.2	8.8
18	10	12	17	15	15	14	173	29	7.6	7.3	6.2	9.1
19	10	12	16	13	14	14	131	52	7.5	6.8	6.2	9.6
20	10	13	15	12	15	15	150	83	6.9	6.1	6.4	9.6
21	10	13	14	12	16	15	136	62	6.9	5.8	7.8	8.6
22	10	13	15	13	14	15	158	53	6.3	5.7	8.8	8.6
23	10	13	16	14	16	15	157	38	4.7	5.3	8.3	9.0
24	11	15	15	14	16	15	153	29	4.5	5.3	8.4	25
25	11	15	14	13	15	15	167	28	4.9	5.4	8.4	12
26	10	14	16	12	16	16	145	27	4.8	5.6	8.0	10
27	11	13	16	13	16	17	122	24	4.7	4.1	7.8	9.5
28	13	14	17	13	15	18	107	21	5.2	3.2	7.1	9.2
29	12	15	17	13	---	18	99	24	6.4	3.6	7.7	8.8
30	11	16	15	12	---	17	108	23	5.1	3.4	7.9	8.8
31	11	---	15	14	---	16	---	25	---	3.4	7.7	---
TOTAL	254.8	377	490	415	384	480	2524	1328	514.3	177.8	207.7	286.0
MEAN	8.22	12.6	15.8	13.4	13.7	15.5	84.1	42.8	17.1	5.74	6.70	9.53
MAX	13	16	18	15	16	18	173	108	64	7.3	8.8	25
MIN	3.8	11	13	12	12	14	15	16	4.5	3.2	3.9	7.7
AC-FT	505	748	972	823	762	952	5010	2630	1020	353	412	567

CAL YR 1980 TOTAL 44105.9 MEAN 121 MAX 1600 MIN 3.1 AC-FT 87480
WTR YR 1981 TOTAL 7438.6 MEAN 20.4 MAX 173 MIN 3.2 AC-FT 14750

08290000 RIO CHAMA NEAR CHAMITA, NM

LOCATION.--Lat 36°04'26", long 106°06'40", in NE¼NE¼ sec.8, T.21 N., R.8 E., Rio Arriba County, Hydrologic Unit 13020102, in 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 mi^2 (8,143 km^2), of which about 100 mi^2 (260 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1912 to current year. Monthly discharge only for some periods, published WSP 1312. Published as Chama River near Chamita prior to 1928, and Chama River at Chamita 1929-30.
REVISED RECORDS.--WSP 1512: 1913-15, 1934, 1936. WSP 1632: 1929(M). WSP 1732: 1931(M). WSP 1923: Drainage area.
GAGE.--Water-stage recorder. Concrete control since Jan. 1, 1964. Datum of gage is 5,653.61 ft (1,723.220 m) National Geodetic Vertical Datum of 1929. 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 (60 m) downstream, present datum.
REMARKS.--Water-discharge records good. Diversions above station for irrigation of about 27,600 acres (112 km^2). Chamita ditch (station 08289500), on left bank, and Hernandez ditch (station 08289800), on right bank, bypass gage for irrigation of several hundred acres below station; see tabulation below for monthly diversion during irrigation season. Flow regulated by El Vado Reservoir (station 08285000) and Abiquiu Reservoir (station 08286900), 74.9 mi (120.5 km) and 29.3 mi (47.1 km) upstream respectively. Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510) 83.0 mi (133.5 km) upstream. National Weather Service gage-height telemeter at station.
AVERAGE DISCHARGE.--58 years (water years 1913-70), 541 ft^3/s (15.32 m^3/s), 392,000 acre-ft/yr (483 hm^3/yr), prior to release of transmountain water; 11 years (water years 1971-81), 488 ft^3/s (13.82 m^3/s), 353,600 acre-ft/yr (436 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft^3/s (425 m^3/s) May 22, 1920, from rating curve extended above 2,300 ft^3/s (65 m^3/s); maximum gage height, 10.45 ft (3.185 m) Aug. 22, 1961; no flow at times.
EXTREMES OUTSIDE PERIOD OF RECORD.--The floods of Sept. 29, 1904, and Oct. 4 or 5, 1911, probably exceeded 15,000 ft^3/s (420 m^3/s). Another major flood occurred in 1884, from newspaper accounts.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,220 ft^3/s (62.9 m^3/s) Sept. 5, gage height, 5.77 ft (1.759 m); minimum, 28 ft^3/s (0.79 m^3/s) Aug. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	560	232	894	471	98	128	73	277	647	551	877	38
2	689	816	878	501	103	128	70	691	667	601	885	93
3	645	869	839	629	98	114	70	1130	682	159	672	106
4	612	897	838	631	72	106	173	1330	681	96	67	160
5	601	711	837	632	54	120	78	1120	686	63	30	383
6	601	845	773	523	81	121	48	817	551	50	41	448
7	550	1070	773	104	104	113	45	649	356	47	41	401
8	445	940	715	65	105	107	46	554	354	434	93	145
9	376	939	527	59	97	106	47	427	333	290	109	87
10	344	934	520	54	87	105	64	372	290	325	120	75
11	206	931	537	61	91	111	52	335	220	249	916	76
12	158	944	789	69	85	119	48	316	207	397	362	61
13	135	972	881	85	72	119	82	266	397	357	688	55
14	124	971	882	151	70	127	348	250	661	393	291	54
15	120	971	868	157	70	127	873	154	644	229	150	112
16	117	970	809	247	71	120	917	135	641	352	88	153
17	83	968	741	97	71	118	717	206	685	190	81	210
18	60	964	693	81	71	154	758	231	744	66	63	113
19	49	960	713	77	85	154	746	512	676	35	63	86
20	49	942	802	80	112	154	727	570	763	34	53	75
21	86	894	800	91	121	128	592	620	957	246	39	55
22	113	858	801	81	122	125	301	849	960	955	226	51
23	91	858	798	90	124	107	255	702	1060	931	723	57
24	81	873	730	90	126	96	231	512	913	974	751	52
25	67	900	724	87	126	94	237	382	914	1010	782	89
26	56	856	724	88	127	92	440	310	934	1030	491	48
27	58	861	724	88	127	90	469	300	939	1030	84	40
28	60	860	722	72	128	125	507	301	935	975	89	34
29	58	893	761	72	---	126	264	553	764	870	213	34
30	179	897	1140	73	---	98	298	600	326	747	155	34
31	229	---	1150	80	---	78	---	624	---	716	55	---
TOTAL	7602	26596	24383	5686	2698	3610	9576	16095	19587	14402	9298	3425
MEAN	245	887	787	183	96.4	116	319	519	653	465	300	114
MAX	689	1070	1150	632	128	154	917	1330	1060	1030	916	448
MIN	49	232	520	54	54	78	45	135	207	34	30	34
AC-FT	15080	52750	48360	11280	5350	7160	18990	31920	38850	28570	18440	6790
(†)	474	---	---	---	---	---	539	833	1230	729	847	879
(‡)	393	---	---	---	---	---	545	572	329	561	288	604

CAL YR 1980 TOTAL 311267 MEAN 850 MAX 3320 MIN 29 AC-FT 617400
WTR YR 1981 TOTAL 142958 MEAN 392 MAX 1330 MIN 30 AC-FT 283600

† Diversion, in acre-feet, by Chamita ditch.
‡ Diversion, in acre-feet, by Hernandez ditch.

08290000 RIO CHAMA NEAR CHAMITA, NM -- Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1969 to December 1974.
WATER TEMPERATURES: October 1950 to December 1974.
SUSPENDED SEDIMENT DISCHARGES: October 1947 to December 1974.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT							
30...	1150	188	513	8.0	204	104	--
DEC							
23...	1145	781	375	5.0	21	44	94
JAN							
21...	1400	103	600	3.0	42	12	--
FEB							
20...	1235	118	540	8.0	52	17	--
MAR							
18...	1400	163	530	10.0	53	23	--
APR							
14...	1625	332	509	--	422	378	91
MAY							
12...	1515	315	400	--	83	71	98
JUN							
09...	1255	332	408	20.0	51	46	82
JUL							
09...	1500	282	334	24.0	197	150	--
AUG							
06...	1315	34	457	24.5	96	8.8	99
SEP							
04...	1400	105	499	19.5	514	146	98
29...	1430	32	680	19.0	54	4.7	--

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 sites are located in Hydrologic Unit 13020102. 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, NM.--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, NM.--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, NM.--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, NM.--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, NM.--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 PUENTE DITCH NEAR ABIQUIU, NM.--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, NM.--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, NM.--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 (station 08287250), and 2.8 mi (4.5 km) east of Abiquiu. PERIOD OF RECORD, April 1972 to current year.

08287300 MARIANO DITCH NEAR ABIQUIU, NM.--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, NM.--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 (station 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, NM.--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, NM.--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, NM.--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, NM.--Lat 36°11'13", long 106°12'02", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter, and Parshall flume on left bank, 0.5 mi (0.8 km) downstream from tail of Jose V. Martinez ditch (station 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.

DIVERSIONS FROM RIO CHAMA --Continued

08288200 MARTINEZ AND DURANCES DITCH (UPPER) NEAR MEDANALES, NM.--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 (station 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, NM.--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 (station 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, NM.--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 bank 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.

08289500 CHAMITA DITCH NEAR CHAMITA, NM.--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, 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, NM.--Lat 36°04'52", long 106°07'16", Rio Arriba County, in Bartolome Sanchez Grant totalizing flowmeter, 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, NM.--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, IRRIGATION SEASON 1981

	Diversion	APR	MAY	JUN	JUL	AUG	SEP	OCT
08286300	Monastery pump	0	0.1	1.0	0	0.06	0.07	0.2
08287020	Abeyta Trujillo ditch	255	372	409	136	194	30	1.0
08287040	Winfield Morton pump	52	86	37	7.0	44	0	0
08287060	Jose Pablo Gonzales ditch	556	1220	1300	519	546	244	78
08287150	Gonzales ditch	37	a	a	178	96	27	1.6
08287200	La Puente ditch	118	211	248	252	288	14	3.6
08287250	Quintana ditch	40	81	56	66	53	24	5.5
08287270	Valentine Martinez ditch	8.7	.4	12	11	.2	2.0	7.1
08287300	Mariano ditch	29	166	180	b110	6.4	2.7	50
08287400	Ferran ditch	1.2	20	142	109	49	1.0	.5
08287600	Tierra Azul ditch	484	611	607	344	350	233	3.7
08288050	Jose V. Martinez ditch	70	194	226	93	49	40	32
08288100	Manzanares and Montoya ditch	.4	.7	.1	.2	.2	.2	.2
08288150	Rio de Chama ditch	461	796	670	459	683	226	419
08288200	Martinez and Duranes ditch (upper)	905	1060	944	989	987	678	499
08288250	Martinez and Duranes ditch (lower)	450	524	583	b700	460	369	214
08288300	Chili ditch	188	b900	124	201	465	125	116
08289500	Chamita ditch	539	833	1230	729	847	879	662
08289800	Hernandez ditch	545	572	329	561	288	604	1080
08290100	Salazar ditch	416	543	587	465	446	232	83

a Flume submerged; record not usable.
b Estimated.

08291000 SANTA CRUZ RIVER AT CUNDIYO, NM

LOCATION.--Lat 35°57'53", long 105°54'14", in SE¼NW¼ sec.17, T.20 N., R.10 E., Santa Fe County, Hydrologic Unit 13020101, 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 mi^2 (220 km^2), 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.

REVISED RECORDS.--WSP 1392: 1931(M), 1932-33, 1934-39(M), 1942, 1943(M).

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.

REMARKS.--Remarks good except those for winter period, which are fair. Diversions for irrigation of about 1,000 acres (4.05 km^2) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--51 years, 28.7 ft^3/s (0.813 m^3/s), 20,790 acre-ft/yr (25.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,420 ft^3/s (68.5 m^3/s) Sept. 24, 1931, gage height, 7.8 ft (2.38 m), site and datum then in use, from rating curve extended above 170 ft^3/s (4.81 m^3/s); minimum, 0.19 ft^3/s (0.005 m^3/s) Mar. 13, 1954, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 121 ft^3/s (3.43 m^3/s) at 1745 hours Aug. 27, gage height, 2.40 ft (0.732 m), no other peak above base of 100 ft^3/s (2.8 m^3/s); minimum, 1.8 ft^3/s (0.051 m^3/s) Apr. 5, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	12	8.8	8.9	5.0	7.0	7.3	20	23	20	5.1	13
2	8.8	11	8.8	8.9	5.0	6.8	8.8	30	22	16	6.4	12
3	9.4	11	8.6	8.9	5.0	7.5	8.3	28	25	13	7.7	11
4	8.0	11	8.7	8.9	5.0	6.8	6.8	27	29	12	7.3	13
5	8.1	10	8.5	7.3	5.0	6.5	5.9	26	26	10	6.0	22
6	8.3	10	8.4	6.5	5.5	6.8	7.3	26	25	8.7	9.7	17
7	7.7	10	8.7	6.0	5.5	6.0	8.0	24	18	9.0	16	15
8	7.8	9.8	8.9	6.5	5.5	6.8	9.2	22	18	18	12	19
9	7.4	9.2	8.1	6.5	6.0	6.4	9.0	19	16	15	11	19
10	7.6	9.4	7.0	6.5	5.3	6.4	10	18	15	13	15	15
11	8.1	9.1	8.5	6.5	4.5	6.7	11	18	14	18	24	14
12	8.1	9.3	9.0	7.0	5.0	6.7	10	16	15	15	60	14
13	8.6	9.7	8.9	6.5	4.5	6.4	17	14	13	12	37	12
14	9.2	10	8.4	6.0	4.5	7.0	20	14	13	9.9	30	12
15	11	8.1	7.5	6.0	5.5	7.1	15	15	13	13	26	12
16	10	7.0	8.7	6.2	5.5	7.3	15	19	11	12	24	12
17	9.4	6.0	9.0	6.4	6.0	7.3	19	17	13	11	20	15
18	8.8	4.1	8.8	6.4	6.4	6.0	18	16	11	12	22	14
19	9.2	6.0	7.7	5.5	6.0	6.8	19	18	11	10	22	13
20	9.4	8.5	4.7	5.0	6.0	7.0	19	18	9.5	8.6	19	12
21	9.8	8.5	6.4	5.0	5.7	6.4	18	16	7.8	7.7	22	8.9
22	9.4	8.9	7.0	5.5	5.0	6.4	19	13	8.2	7.2	21	9.6
23	9.0	8.5	8.5	6.0	5.5	6.9	19	14	10	6.7	18	11
24	8.5	10	8.9	6.5	5.5	7.3	18	13	11	8.3	17	12
25	9.8	8.9	8.0	6.0	5.5	6.8	18	14	12	8.0	15	9.1
26	12	8.1	7.5	5.0	6.0	7.8	18	14	9.0	12	14	8.4
27	13	8.1	8.0	5.5	6.4	7.9	20	13	8.3	11	20	8.3
28	11	8.9	8.0	5.5	6.0	8.0	18	15	8.6	9.1	15	7.6
29	11	9.8	7.7	5.5	---	7.6	18	19	16	8.4	14	6.9
30	11	9.7	7.5	5.0	---	7.7	18	24	27	8.1	13	8.0
31	12	---	7.5	5.7	---	8.0	---	25	---	6.2	12	---
TOTAL	289.8	270.6	250.7	197.6	152.3	216.1	427.6	585	458.4	348.9	561.2	375.8
MEAN	9.35	9.02	8.09	6.37	5.44	6.97	14.3	18.9	15.3	11.3	18.1	12.5
MAX	13	12	9.0	8.9	6.4	8.0	20	30	29	20	60	22
MIN	7.4	4.1	4.7	5.0	4.5	6.0	5.9	13	7.8	6.2	5.1	6.9
AC-FT	575	537	497	392	302	429	848	1160	909	692	1110	745

CAL YR 1980 TOTAL 14224.9 MEAN 38.9 MAX 211 MIN 4.1 AC-FT 28220
WTR YR 1981 TOTAL 4134.0 MEAN 11.3 MAX 60 MIN 4.1 AC-FT 8200

08294200 NAMBE FALLS RESERVOIR NEAR NAMBE, NM

LOCATION.--Lat 35°50'46", long 105°54'17", in NE¼SW¼ sec.29, T.19 N., R.10 E., Santa Fe County, Hydrologic Unit 13020101, in Nambe Indian Reservation, 300 ft (91 m) upstream from Nambe Falls, 2.6 mi (4.2 km) upstream from Rio En Medio, 4.4 mi (7.1 km) southeast of Nambe Pueblo, and 5.4 mi (8.7 km) southeast of Nambe.
DRAINAGE AREA.--34.1 mi^2 (88.3 km^2).
PERIOD OF RECORD.--February 1976 to current year.
REVISED RECORDS.--WDR NM-77-1: Drainage area.
GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to July 22, 1976, nonrecording gage at same site and datum.
REMARKS.--Reservoir is formed by a concrete arch and earthfill dam, storage began Feb. 23, 1976. Total capacity, 2,020 acre-ft (2.49 hm^3) at elevation 6,826.6 ft (2,080.75 m), crest of ogee weir spillway, including 237 acre-ft (292,000 m^3) of storage in a permanent pool between elevation 6,760.9 ft (2,060.72 m), invert of outlet conduits, and 6,780.0 ft (2,066.54 m). Dead storage 121 acre-ft (149,000 m^3) below elevation 6,760.9 ft (2,060.72 m). Outlet conduits are one 6-in (0.152 m) and two 12-in (0.305 m) diameter pipes. Reservoir is used for storage of irrigation water and for recreation. Figures given herein represent total storage.
COOPERATION.--Records furnished by Bureau of Reclamation.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,060 acre-ft (2.54 hm^3) June 9, 1979, elevation, 6,827.24 ft (2,080.943 m); no storage prior to Feb. 23, 1976.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,600 acre-ft (1.97 hm^3) May 4, elevation, 6,818.75 ft (2,078.355 m); minimum, 382 acre-ft (0.47 hm^3) July 30, elevation, 6,781.32 ft (2,066.946 m).

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Bureau of Reclamation in 1976)

6,780	358	6,810	1,200
6,790	565	6,820	1,660
6,800	838		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1110	903	920	1070	1170	1250	1360	1550	1350	954	398	525
2	1110	884	925	1070	1170	1250	1360	1560	1360	947	427	520
3	1100	869	930	1080	1170	1260	1360	1580	1360	936	417	512
4	1100	859	935	1080	1180	1260	1370	1600	1360	924	425	501
5	1100	851	939	1090	1180	1260	1370	1590	1360	912	433	491
6	1100	846	947	1090	1180	1270	1370	1580	1360	897	443	480
7	1100	852	950	1090	1180	1270	1380	1580	1360	865	446	469
8	1100	858	956	1100	1190	1270	1380	1570	1360	817	417	462
9	1080	866	961	1100	1190	1280	1390	1560	1360	774	388	457
10	1070	873	964	1100	1190	1280	1400	1550	1350	745	384	460
11	1050	874	967	1110	1200	1280	1400	1540	1330	733	394	462
12	1030	868	975	1110	1200	1290	1410	1540	1320	716	412	464
13	1020	861	980	1120	1200	1290	1430	1530	1300	697	422	465
14	1010	856	986	1120	1200	1290	1440	1520	1280	680	432	467
15	1000	850	992	1120	1200	1300	1450	1500	1260	678	441	467
16	994	846	996	1120	1210	1300	1460	1490	1240	669	451	468
17	986	841	1000	1130	1210	1300	1470	1480	1230	655	459	473
18	978	843	1010	1130	1210	1310	1480	1470	1210	636	468	475
19	970	841	1010	1140	1210	1310	1500	1450	1190	621	477	476
20	973	859	1020	1140	1220	1310	1510	1440	1170	604	486	477
21	971	868	1020	1140	1220	1320	1520	1430	1150	567	496	477
22	950	870	1020	1140	1220	1320	1530	1420	1120	564	506	477
23	928	871	1030	1150	1230	1320	1540	1410	1100	538	516	476
24	915	882	1030	1150	1230	1330	1550	1400	1080	501	527	476
25	907	885	1040	1150	1230	1330	1560	1390	1060	488	538	476
26	901	895	1040	1160	1240	1330	1560	1380	1030	461	543	474
27	902	901	1050	1160	1240	1340	1560	1380	1010	451	549	473
28	909	904	1050	1160	1250	1340	1560	1370	983	432	547	471
29	916	911	1060	1160	---	1340	1560	1360	966	399	543	469
30	923	915	1060	1160	---	1350	1560	1350	961	391	541	467
31	923	---	1060	1160	---	1350	---	1350	---	387	530	---
MAX	1110	915	1060	1160	1250	1350	1560	1600	1360	954	549	525
MIN	901	841	920	1070	1170	1250	1360	1350	961	387	384	457
(†)	6802.60	6802.37	6806.60	6809.12	6811.05	6813.47	6817.86	6813.35	6803.75	6781.59	6788.48	6785.63
(‡)	-187	-8	+145	+100	+90	+100	+210	-210	-389	-574	+143	-63

CAL YR 1980 MAX 2040 MIN 841 ‡ -430
WTR YR 1981 MAX 1600 MIN 384 ‡ -643

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

08294210 RIO NAMBE BELOW NAMBE FALLS DAM, NEAR NAMBE, NM

LOCATION.--Lat 35°50'46", long 105°54'17", in NE¼SW¼ sec. 29, T.19 N., R.10 E., Santa Fe County, Hydrologic Unit 13020101, in Nambe Indian Reservation, in outlet conduits of Nambe Falls Dam, 300 ft (91 m) upstream from Nambe Falls, 2.6 mi (4.2 km) upstream from Rio En Medio, 4.4 mi (7.1 km) southeast of Nambe Pueblo and 5.4 mi (8.7 km) southeast of Nambe.
DRAINAGE AREA.--34.1 mi^2 (88.3 km^2).
PERIOD OF RECORD.--January 1979 to current year.
GAGE.--Totalizing flowmeters in each of three outlet conduits in Nambe Falls Dam.
REMARKS.--Flow regulated by Nambe Falls Reservoir (station 08294200). Outlet conduits are one 6-in (0.152 m) and two 12-in (0.305 m) diameter pipes. During periods of spill at Nambe Falls Dam, record computed at site 1,100 ft (335 m) downstream, site of discontinued station 58294300, Rio Nambe at Nambe Falls.
COOPERATION.--Records furnished by Bureau of Reclamation.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 312 ft^3/s (8.84 m^3/s) June 9, 1979, gage height, 1.96 ft (0.597 m) at site 1,100 ft (335 m) downstream (maximum release and spill computed at Nambe Falls Dam, 250 ft^3/s, 7.08 m^3/s, June 9, 1979); minimum daily discharge, 0.13 ft^3/s (0.004 m^3/s) May 3, 1981.
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 29 ft^3/s (0.82 m^3/s) July 8; minimum daily discharge, 0.13 ft^3/s (0.004 m^3/s) May 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	15	.49	.50	.43	.50	.50	11	9.5	13	3.9	8.1
2	9.3	15	.50	.50	.43	.50	.50	3.6	8.5	13	2.3	7.6
3	13	13	.50	.50	.47	.50	.50	.13	7.0	13	2.3	7.1
4	14	11	.50	.50	.50	.50	.50	2.3	8.5	13	2.3	16
5	14	9.8	.50	.50	.50	.50	.50	11	9.0	13	.81	10
6	11	8.2	.50	.50	.50	.50	.50	11	9.0	13	1.2	12
7	8.2	8.2	.50	.50	.50	.50	.50	11	9.0	22	4.0	13
8	7.8	8.2	.50	.50	.50	.50	.50	11	12	29	21	13
9	7.0	8.2	.50	.50	.50	.50	.46	11	13	28	21	9.1
10	7.3	8.2	.50	.50	.55	.50	.42	10	13	22	8.1	5.6
11	7.3	4.6	.50	.50	.61	.50	.42	10	13	15	.66	5.6
12	7.3	.21	.50	.51	.61	.50	.42	7.6	13	15	3.1	5.6
13	4.4	.21	.50	.55	.61	.50	.41	9.3	13	15	4.3	5.6
14	3.6	.21	.50	.61	.61	.50	.41	11	13	15	3.2	5.6
15	14	.21	.50	.61	.61	.50	.35	11	13	15	3.2	5.6
16	15	.21	.51	.61	.55	.50	.30	12	13	15	3.2	5.6
17	11	.21	.51	.61	.51	.50	.30	12	14	15	3.2	5.6
18	7.0	.21	.51	.61	.51	.50	.30	12	14	15	3.3	5.6
19	7.3	.21	.51	.50	.51	.50	.30	11	13	15	2.4	5.6
20	7.8	.46	.51	.44	.51	.50	.27	11	13	15	2.4	5.6
21	8.2	.46	.51	.44	.51	.51	.24	11	13	15	2.4	5.6
22	8.2	.46	.50	.44	.51	.51	.24	11	14	16	2.4	5.6
23	8.2	.46	.50	.44	.50	.51	.24	11	15	16	2.4	5.6
24	8.2	.46	.50	.44	.50	.51	.24	11	14	16	2.4	5.5
25	8.2	.46	.50	.44	.50	.51	2.9	11	14	16	2.4	5.5
26	8.2	.46	.50	.44	.50	.51	6.4	11	14	16	2.4	5.5
27	4.7	.46	.50	.44	.50	.51	6.4	11	13	16	2.4	5.5
28	.85	.46	.50	.43	.50	.50	6.5	12	13	16	1.8	5.5
29	.85	.46	.50	.43	---	.50	7.8	9.6	13	15	4.9	5.5
30	1.0	.46	.50	.43	---	.50	8.8	9.5	13	10	8.1	5.5
31	4.5	---	.50	.43	---	.50	---	9.5	---	6.0	8.1	---
TOTAL	242.90	116.14	15.55	15.35	14.54	15.57	48.12	306.53	366.5	487.0	135.57	212.8
MEAN	7.84	3.87	.50	.50	.52	.50	1.60	9.89	12.2	15.7	4.37	7.09
MAX	15	15	.51	.61	.61	.51	8.8	12	15	29	21	16
MIN	.85	.21	.49	.43	.43	.50	.24	.13	7.0	6.0	.66	5.5
AC-FT	482	230	31	30	29	31	95	608	727	966	269	422

CAL YR 1980 TOTAL 5066.16 MEAN 13.8 MAX 79 MIN .21 AC-FT 10050
WTR YR 1981 TOTAL 1976.57 MEAN 5.42 MAX 29 MIN .13 AC-FT 3920

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM
(National stream-quality accounting network, surveillance network, and radiochemical network station)

LOCATION.--Lat 35°52'29", long 106°08'30", in SW¼SW¼ sec.18, T.19 N., R.8 E., Santa Fe County, Hydrologic Unit 13020101, 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 mi^3 (37,040 km^3), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

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."

REVISED RECORDS.--WSP 828: Drainage area. WSP 1512: 1895-99, 1904-6, 1911-12, 1914, 1931(M), 1935. WSP 1712: 1904(M).

GAGE.--Water-stage recorder. Datum of gage is 5,488.48 ft (1,672.889 m) National Geodetic Vertical Datum of 1929. See WSP 1312, 1732, or 1923 for history of changes prior to June 1, 1910.

REMARKS.--Water-discharge records good. Considerable regulation by Heron Reservoir (station 08284510), El Vado Resevoir (station 08285000) and Abiquiu Reservoir (station 08286900) on Rio Chama, which can contribute a major portion of the total flow. Flow affected by release of transmountain water from Heron Reservoir since May 1971. Diversions above station for irrigation of about 620,000 acres (2,500 km^2) in Colorado and 75,000 acres (300 km^2) in New Mexico. Gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,400 ft^3/s (691 m^3/s) May 23, 1920; maximum gage height, 14.5 ft 4.42 m) Sept. 29, 1904, present site and datum; minimum daily discharge, 60 ft^3/s (1.70 m^3/s) July 4, 5, 1902.

EXTREMES OUTSIDE PERIOD OF RECORD.--The 1920 flood is greatest since at least 1884 and probably since 1741; information from W. H. Yeo's file on floods.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,340 ft^3/s (66.3 m^3/s) Aug. 12, gage height, 4.62 ft (1.408 m), no peak above base of 5,200 ft^3/s (150 m^3/s); minimum, 228 ft^3/s (6.46 m^3/s) Aug. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	714	429	1490	1140	571	661	439	649	928	678	1170	299
2	895	1090	1490	1040	556	657	425	969	991	1090	1190	319
3	854	1190	1460	1200	512	682	408	1550	1030	485	1140	336
4	834	1250	1480	1220	520	650	473	1950	1060	361	383	404
5	834	1050	1500	1220	513	679	441	1630	1070	342	262	634
6	834	1080	1460	1180	520	675	358	1340	963	305	246	958
7	786	1490	1460	709	564	655	329	1100	660	288	247	794
8	682	1280	1440	628	562	633	299	996	633	676	415	572
9	595	1280	1180	587	568	623	291	793	593	634	401	446
10	540	1280	1080	500	573	628	301	665	542	609	430	414
11	429	1270	1020	532	548	637	296	594	466	449	1250	400
12	357	1290	1190	545	540	643	254	532	444	641	1140	386
13	342	1330	1400	553	510	634	312	472	561	569	1300	380
14	336	1340	1410	605	540	648	456	443	990	583	711	369
15	360	1350	1440	616	565	666	1120	398	945	492	606	421
16	387	1350	1410	693	562	649	1330	387	978	541	512	455
17	369	1350	1350	595	576	648	1020	449	1030	576	503	496
18	333	1360	1300	519	580	666	1060	478	1100	443	428	465
19	318	1410	1320	524	624	668	1060	708	996	349	385	400
20	318	1450	1430	540	687	679	1030	867	1020	336	367	367
21	324	1400	1410	571	708	670	938	912	1280	330	366	327
22	390	1340	1430	559	678	658	650	1190	1270	1270	408	306
23	357	1340	1380	565	668	638	526	1100	1360	1220	1010	314
24	351	1380	1290	578	668	631	509	844	1230	1230	1080	342
25	345	1440	1320	587	654	619	472	683	1170	1260	1090	360
26	330	1390	1320	571	652	580	604	554	1200	1300	875	333
27	342	1360	1300	546	657	560	721	528	1210	1340	413	299
28	366	1390	1310	545	653	563	756	531	1210	1270	386	286
29	351	1460	1340	562	---	567	632	743	1150	1120	436	272
30	384	1460	1760	549	---	533	656	871	588	1050	438	285
31	545	---	1950	552	---	473	---	890	---	937	317	---
TOTAL	15202	38879	43120	21331	16529	19573	18166	25816	28668	22774	19905	12439
MEAN	490	1296	1391	688	590	631	606	833	956	735	642	415
MAX	895	1490	1950	1220	708	682	1330	1950	1360	1340	1300	958
MIN	318	429	1020	500	510	473	254	387	444	288	246	272
AC-FT	30150	77120	85530	42310	32790	38820	36030	51210	56860	45170	39480	24670

CAL YR 1980 TOTAL 728465 MEAN 1990 MAX 7980 MIN 255 AC-FT 1445000
WTR YR 1981 TOTAL 282402 MEAN 774 MAX 1950 MIN 246 AC-FT 560100

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1947 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1946 to current year.
WATER TEMPERATURES: October 1948 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1947 to current year.

INSTRUMENTATION.--Continuous water-temperature recorder since April, 1954. Continuous specific conductance recorder since October 1978.

REMARKS.--Daily mean temperature is computed by averaging the maximum and minimum temperatures for each day.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,310 micromhos Aug. 5, 1963; minimum daily, 152 micromhos July 23, 24, 1979.
WATER TEMPERATURES: Maximum, 31.0°C Aug. 4, 5, 1954; minimum, 0.0°C on many days during winter periods each year.
SEDIMENT CONCENTRATIONS: Maximum daily, 43,500 mg/L Aug. 21, 1955; minimum daily, 11 mg/L July 27, 1963, and Feb. 7, 1974.
SEDIMENT LOADS: Maximum daily, 366,000 tons (332,000 tonnes) Aug. 23, 1961; minimum daily, 3 tons (2.7 tonnes) July 27, 1963.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 532 micromhos Aug. 23; minimum daily, 218 micromhos Apr. 3.
WATER TEMPERATURES: Maximum, 26.5°C July 18; minimum, 0.0°C on several days in January and February.
SEDIMENT CONCENTRATIONS: Maximum daily, 19,400 mg/L Sept. 5; minimum daily, 15 mg/L Apr. 12.
SEDIMENT LOADS: Maximum daily, 37,500 tons (34,000 tonnes) Sept. 5; minimum daily, 10 tons (9.1 tonnes) Apr. 12.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT										
08...	0930	654	325	8.3	15.5	15.5	74	9.2	130	30
NOV										
05...	1110	1020	330	8.3	16.0	11.5	47	10.0	140	37
DEC										
04...	1111	1550	330	8.2	6.5	4.5	21	12.0	120	25
JAN										
07...	1015	729	330	8.6	5.5	3.5	6.3	11.3	140	27
FEB										
11...	1125	554	355	8.7	4.5	2.0	5.0	15.0	130	17
MAR										
04...	1110	636	360	8.4	10.0	7.0	9.0	11.0	120	13
APR										
09...	1215	294	430	8.7	23.0	14.0	--	10.8	160	--
MAY										
05...	1245	1630	470	8.2	17.0	14.0	27	8.8	170	--
JUN										
15...	1005	944	400	8.6	19.5	19.0	29	8.9	160	--
JUL										
13...	1230	563	380	8.3	29.5	24.0	200	7.1	150	--
AUG										
19...	0903	433	420	8.5	19.5	19.5	24	8.4	150	--
SEP										
21...	1200	334	400	8.6	28.0	19.0	22	8.6	140	--

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	HARDNESS NONCARBONATE (MG/L AS CACO3) (95902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)
OCT										
08...	--	39	7.0	17	.7	2.2	96	59	4.7	.4
NOV										
05...	--	42	7.8	18	.7	2.7	100	66	4.6	.3
DEC										
04...	--	36	7.0	16	.6	2.8	94	57	4.9	1.5
JAN										
07...	--	42	7.7	21	.8	2.5	--	57	6.5	.4
FEB										
11...	--	39	7.1	21	.8	2.7	110	50	6.6	.4
MAR										
04...	--	38	6.9	24	.9	2.6	110	57	7.4	.3
APR										
09...	27	48	9.0	34	1.2	3.1	130	74	11	.6
MAY										
05...	73	51	11	27	.9	2.6	100	110	6.6	.3
JUN										
15...	58	48	9.2	23	.8	3.1	100	90	5.5	.3
JUL										
13...	57	48	7.9	20	.7	3.4	95	85	4.8	.3
AUG										
19...	27	47	7.2	23	.9	3.4	120	63	6.2	.4
SEP										
21...	16	42	7.5	24	.9	3.4	120	57	8.2	.5

DATE	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)
OCT									
08...	17	280	204	.06	.03	.010	.010	.80	.87
NOV									
05...	17	225	219	.00	.00	.200	.100	.80	1.0
DEC									
04...	18	216	200	.11	.00	.000	.000	1.0	1.1
JAN									
07...	22	221	226	.18	.16	.120	.100	.88	1.2
FEB									
11...	25	216	219	.12	.12	.090	.110	.88	1.1
MAR									
04...	24	211	227	.20	.22	.110	.100	.68	.99
APR									
09...	21	287	279	.01	.02	.040	.040	.76	.81
MAY									
05...	15	302	284	.13	.09	.110	.110	.83	1.1
JUN									
15...	15	269	254	.03	.03	.190	.170	.80	1.0
JUL									
13...	18	250	245	--	.06	--	.080	--	--
AUG									
19...	23	245	246	.11	.00	.130	.080	1.1	1.3
SEP									
21...	22	247	237	<.10	<.10	.130	.100	.61	--

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT									
08...	.110	--	30	10	--	5.0	4.8	.4	--
NOV									
05...	.050	--	20	20	6	--	3.4	.6	.00
DEC									
04...	.050	--	90	30	--	5.2	--	--	--
JAN									
07...	.060	--	30	30	--	3.0	--	--	--
FEB									
11...	.100	--	30	30	20	--	3.1	.3	.00
MAR									
04...	.120	.030	40	20	--	6.9	--	--	--
APR									
09...	.060	--	70	10	--	5.9	--	--	--
MAY									
05...	.110	--	30	20	8	--	3.6	1.2	.00
JUN									
15...	.200	--	30	20	--	5.6	--	--	--
JUL									
13...	.340	--	--	--	--	6.3	--	--	--
AUG									
19...	.100	--	40	11	5	--	3.9	2.2	.00
SEP									
21...	.090	--	40	<10	--	4.2	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)
NOV											
05...	1110	3	2	100	70	20	0	1	0	0	1
FEB											
11...	1125	4	3	100	50	30	1	<1	0	0	3
MAY											
05...	1245	3	2	100	80	30	0	1	20	0	0
AUG											
19...	0903	3	3	100	90	40	0	<1	0	0	0

DATE	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)
NOV										
05...	4	7	2	1900	20	9	1	110	6	.1
FEB										
11...	<3	8	4	400	30	8	2	50	20	.1
MAY										
05...	<3	10	3	1600	20	6	2	110	8	.1
AUG										
19...	<3	6	2	2000	11	4	6	180	5	.0

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV										
05...	.2	14	6	9	0	0	0	0	80	7
FEB										
11...	.0	19	4	0	0	0	1	1	50	20
MAY										
05...	.0	16	7	1	1	0	0	0	30	10
AUG										
19...	.0	18	2	0	0	0	1	0	70	21

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO-GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO-GEN,TOT IN BOT-TOM MA-TERIAL (MG/KG AS N) (00603)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)
MAY								
05...	1245	.0	2.5	3.0	380	0	0	1

DATE	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)
MAY							
05...	0	3	330	10	110	.00	1

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
OCT									
08...	0930	6.2	3.4	3.2	4.0	3.1	4.0	.14	2.2
APR									
09...	1215	5.4	.4	5.0	1.3	4.7	1.2	.16	6.1

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLORDANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DIAZINON, TOTAL (UG/L) (39570)	DIELDRIN TOTAL (UG/L) (39380)
MAY									
05...	1245	--	--	--	--	--	--	--	--
AUG									
19...	0903	.00	.00	.00	.00	.00	.00	.00	.00

DATE	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALATHION, TOTAL (UG/L) (39530)	METHOXYCHLOR, TOTAL (UG/L) (39480)	METHYL PARATHION, TOTAL (UG/L) (39600)
MAY									
05...	--	--	--	--	--	--	--	--	--
AUG									
19...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL TRITHION, TOTAL (UG/L) (39790)	PARATHION, TOTAL (UG/L) (39540)	TOXAPHENE, TOTAL (UG/L) (39400)	TOTAL TRITHION (UG/L) (39786)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PERTHANE TOTAL (UG/L) (39034)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
MAY									
05...	--	--	--	--	.00	.05	--	--	--
AUG									
19...	.00	.00	0	.00	--	--	.00	.00	.00

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
08...	0930	93	150
NOV			
05...	1110	32	61
DEC			
04...	1111	8	35
JAN			
07...	1015	0	2
FEB			
11...	1125	1	5
MAR			
04...	1110	4	45
APR			
09...	1215	1	4
MAY			
05...	1245	340	210
JUN			
15...	1005	280	180
JUL			
13...	1230	380	900
AUG			
19...	0903	250	190
SEP			
21...	1200	47	28

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 5,80		MAR 4,81		MAY 5,81		JUN 15,81	
TIME	1110		1110		1245		1005	
TOTAL CELLS/ML	2700		2900		7000		18000	
DIVERSITY: DIVISION	1.3		0.7		1.1		1.3	
.CLASS	1.3		0.7		1.1		1.3	
..ORDER	2.7		2.2		2.5		2.4	
...FAMILY	3.3		2.5		3.1		3.0	
....GENUS	3.4		2.8		3.8		3.6	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)								
.BACILLARIOPHYCEAE								
..ACHNANTHALES								
...ACHNANTHACEAE								
....ACHNANTHES	86	3	34	1	190	3	--	-
....COCCONEIS	17	1	--	-	140	2	560	3
....RHOICOSPHENIA	--	-	--	-	47	1	--	-
..BACILLARIALES								
...NITZSCHIACEAE								
....NITZSCHIA	380	14	150	5	750	11	3000#	17
..EPITHEMIALES								
...EPITHEMIACEAE								
....EPITHEMIA	34	1	--	-	--	-	280	2
..EUPODISCALES								
...COSCINODISCACEAE								
....CYCLOTELLA	69	3	50	2	1800#	25	2900#	16
....MELOSIRA	34	1	50	2	510	7	--	-
....STEPHANODISCUS	--	-	170	6	--	-	--	-
..FRAGILARIALES								
...FRAGILARIACEAE								
....DIATOMA	340	13	34	1	280	4	*	0
....FRAGILARIA	--	-	810#	28	510	7	980	6
....SYNEDRA	17	1	67	2	--	-	--	-
..NAVICULALES								
...CYMBELLACEAE								
....AMPHORA	--	-	--	-	--	-	--	-
....CYMBELLA	86	3	17	1	47	1	--	-
...GOMPHONEMACEAE								
....GOMPHONEMA	--	-	17	1	47	1	140	1
...NAVICULACEAE								
....NAVICULA	590#	22	970#	34	330	5	1100	6
..SURIRELLALES								
...SURIRELLACEAE								
....SURIRELLA	17	1	--	-	47	1	--	-
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHLOROCOCCACEAE								
....TETRAEDRON	--	-	--	-	--	-	*	0
...DICTYOSPHAERIACEAE								
....DICTYOSPHAERIUM	86	3	--	-	280	4	630	4
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	--	-
...MICRACTINIACEAE								
....MICRACTINIUM	34	1	220	8	370	5	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	100	4	--	-	230	3	490	3
....CHODATELLA	--	-	--	-	47	1	140	1
....KIRCHNERIELLA	17	1	--	-	140	2	--	-
....OOCYSTIS	69	3	--	-	--	-	1300	8
....TREUBARIA	--	-	--	-	--	-	*	0
...PALMELLACEAE								
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	1100	6
....CRUCIGENIA	--	-	--	-	--	-	--	-
....GLOEOACTINIUM	--	-	--	-	--	-	1100	6
....SCENEDESMUS	340	13	200	7	560	8	2100	12
....TETRASTRUM	--	-	--	-	370	5	280	2
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	84	3	47	1	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 5,80		MAR 4,81		MAY 5,81		JUN 15,81	
TIME	1110		1110		1245		1005	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	--	-	280	4	1400	8
....GOMPHOSPHAERIA	--	-	--	-	--	-	--	-
..NOSTOCALES								
...NOSTOCACEAE								
....APHANIZOMENON	340	13	--	-	--	-	--	-
..OSCILLATORIALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	--	-	--	-
....SPIRULINA	34	1	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	47	1	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
IDENTIFICATION OF PHYTOPLANKTON

DATE	JUL 13,81		AUG 19,81		SEP 21,81	
TIME	1230		0903		1200	
TOTAL CELLS/ML	31000		110000		27000	
DIVERSITY: DIVISION	1.5		1.2		1.3	
.CLASS	1.5		1.2		1.3	
..ORDER	2.0		1.4		1.5	
...FAMILY	2.5		2.4		2.3	
....GENUS	2.9		3.2		2.8	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)						
.BACILLARIOPHYCEAE						
..ACHNANTHALES						
...ACHNANTHACEAE						
....ACHNANTHES	--	-	--	-	--	-
....COCCONEIS	*	0	*	0	--	-
....RHOICOSPHENIA	--	-	--	-	--	-
..BACILLARIALES						
...NITZSCHIACEAE						
....NITZSCHIA	300	1	2200	2	210	1
..EPITHEMIALES						
...EPITHEMIACEAE						
....EPITHEMIA	--	-	--	-	--	-
..EUPODISCALES						
...COSCINODISCACEAE						
....CYCLOTELLA	7000#	23	2700	2	2000	7
....MELOSIRA	700	2	--	-	--	-
....STEPHANODISCUS	--	-	--	-	--	-
..FRAGILARIALES						
...FRAGILARIACEAE						
....DIATOMA	--	-	--	-	--	-
....FRAGILARIA	1900	6	--	-	1100	4
....SYNEDRA	--	-	1400	1	--	-
..NAVICULALES						
...CYMBELLACEAE						
....AMPHORA	--	-	*	0	--	-
....CYMBELLA	--	-	--	-	--	-
...GOMPHONEMACEAE						
....GOMPHONEMA	--	-	--	-	--	-
...NAVICULACEAE						
....NAVICULA	200	1	820	1	--	-
..SURIRELLALES						
...SURIRELLACEAE						
....SURIRELLA	--	-	--	-	--	-
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHLOROCOCCACEAE						
....TETRAEDRON	--	-	--	-	--	-
...DICTYOSPHAERIACEAE						
....DICTYOSPHAERIUM	9100#	29	--	-	--	-
...HYDRODICTYACEAE						
....PEDIASTRUM	--	-	21000#	19	7000#	26
...MICRACTINIACEAE						
....MICRACTINIUM	--	-	--	-	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	500	2	3800	3	280	1
....CHODATELLA	--	-	820	1	140	1
....KIRCHNERIELLA	--	-	2200	2	--	-
....OOCYSTIS	500	2	--	-	--	-
....TREUBARIA	--	-	--	-	--	-
...PALMELLACEAE						
....SPHAEROCYSTIS	--	-	3800	3	--	-
...SCENEDESMACEAE						
....ACTINASTRUM	--	-	9500	9	280	1
....CRUCIGENIA	400	1	--	-	--	-
....GLOEOACTINIUM	--	-	--	-	210	1
....SCENEDESMUS	2400	8	14000	13	5800#	22
....TETRASTRUM	400	1	14000	13	3900	15
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	400	1	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
IDENTIFICATION OF PHYTOPLANKTON

DATE	JUL 13,81		AUG 19,81		SEP 21,81	
TIME	1230		0903		1200	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	3200	10	--	-	--	-
....ANACYSTIS	3900	13	28000#	26	5000#	19
....GOMPHOSPHAERIA	--	-	3500	3	--	-
..NOSTOCALES						
...NOSTOCACEAE						
....APHANIZOMENON	--	-	--	-	--	-
..OSCILLATORIALES						
...OSCILLATORIACEAE						
....OSCILLATORIA	--	-	--	-	700	3
....SPIRULINA	--	-	1100	1	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	--	-	--	-	*	0

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .008 MM (70339)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .031 MM (70341)
OCT										
08...	0930	654	15.5	78	138	75	83	90	91	94
NOV										
05...	1110	1020	11.5	223	614	19	22	24	26	30
DEC										
04...	1111	1550	4.5	248	1040	--	--	--	--	--
JAN										
07...	1015	729	3.5	16	31	28	55	72	78	85
FEB										
11...	1125	554	2.0	20	30	--	--	--	--	--
MAR										
04...	1110	636	7.0	48	82	--	--	--	--	--
APR										
09...	1215	294	14.0	16	13	--	--	--	--	--
15...	0650	1120	9.5	892	2700	22	27	--	40	--
MAY										
05...	1245	1630	14.0	230	1010	--	--	--	--	--
JUN										
15...	1005	944	19.0	75	191	--	--	--	--	--
JUL										
01...	0800	573	21.0	313	484	62	77	--	90	--
02...	0800	1010	19.0	11600	31600	45	58	--	87	--
13...	1230	563	24.0	536	815	48	57	--	78	--
16...	0650	588	21.0	13100	20800	61	70	--	92	--
22...	0650	1280	21.0	4740	16400	16	19	--	45	--
27...	0650	1350	19.5	3020	11000	35	41	--	67	--
AUG										
13...	0645	1350	19.0	12600	45900	47	64	--	88	--
19...	0903	433	19.5	115	134	--	--	--	--	--
SEP										
03...	0650	319	20.0	2490	2150	65	84	--	99	--
05...	0930	545	17.0	23300	34300	52	67	--	91	--
06...	0755	1050	17.0	9780	27700	44	49	--	72	--
21...	1200	334	19.0	63	57	--	--	--	--	--

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)
OCT										
08...	--	--	--	--	--	97	99	100	--	--
NOV										
05...	37	61	99	100	--	--	--	--	--	--
DEC										
04...	24	41	92	99	100	--	--	--	--	--
JAN										
07...	--	--	--	--	--	95	99	100	--	--
FEB										
11...	--	--	--	--	--	62	76	92	100	--
MAR										
04...	--	--	--	--	--	72	82	93	97	100
APR										
09...	--	--	--	--	--	77	88	94	100	--
15...	59	66	73	93	100	--	--	--	--	--
MAY										
05...	36	64	87	98	100	--	--	--	--	--
JUN										
15...	--	--	--	--	--	78	--	--	--	--
JUL										
01...	--	--	--	--	--	98	99	100	--	--
02...	99	100	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	98	99	100	--	--
16...	--	--	--	--	--	100	--	--	--	--
22...	90	99	100	--	--	--	--	--	--	--
27...	88	98	100	--	--	--	--	--	--	--
AUG										
13...	96	99	100	--	--	--	--	--	--	--
19...	--	--	--	--	--	79	--	--	--	--
SEP										
03...	--	--	--	--	--	100	--	--	--	--
05...	99	100	--	--	--	--	--	--	--	--
06...	94	98	100	--	--	--	--	--	--	--
21...	--	--	--	--	--	88	--	--	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	346	389	329	338	348	344	416	413	401	348	360	371
2	332	365	325	355	339	351	431	405	402	430	364	385
3	326	330	320	373	356	351	427	466	393	351	339	450
4	329	330	320	347	357	344	421	477	382	393	347	454
5	332	336	323	380	347	354	441	465	394	419	380	469
6	350	342	320	372	343	355	437	452	449	393	376	484
7	315	333	323	339	365	354	444	427	408	408	381	416
8	312	330	323	320	357	351	442	429	402	400	356	405
9	320	330	332	335	352	351	447	427	401	367	356	376
10	323	328	329	354	345	351	440	429	405	358	365	367
11	326	327	332	354	333	354	443	429	405	364	383	380
12	357	330	342	426	346	361	444	424	411	364	373	382
13	364	326	342	408	348	363	439	431	413	371	468	378
14	369	326	348	400	344	368	436	431	405	371	360	368
15	370	341	341	386	341	366	500	433	400	382	367	369
16	385	335	345	402	338	363	486	441	393	454	367	386
18	411	327	345	376	325	372	459	456	383	418	360	405
19	422	327	355	370	327	366	443	460	371	407	388	373
20	431	333	351	364	329	368	454	453	338	368	386	381
21	438	342	338	367	326	363	464	445	335	377	369	381
22	419	327	338	366	324	362	447	435	335	449	380	380
23	416	312	341	371	325	364	415	428	323	408	444	398
24	422	318	349	368	322	358	444	436	318	404	425	391
25	429	315	349	367	331	358	410	435	307	455	421	393
26	424	318	345	352	334	365	410	432	297	430	434	399
27	425	321	352	359	334	368	430	430	302	435	401	405
28	423	319	358	360	340	369	439	425	310	397	395	398
29	430	321	358	341	---	384	442	412	312	373	374	390
30	438	321	378	340	---	393	415	397	330	358	369	380
31	386	---	368	358	---	397	---	393	---	359	372	---
MEAN	380	331	341	365	339	362	441	435	371	395	382	397

WTR YR 1981 MEAN 378 MAX 500 MIN 297

RIO GRANDE BASIN
08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.°C), RECORDER MAXIMUM, MINIMUM, AND MEAN,
WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	358	344	351	434	222	311	354	344	350	388	360	380
2	356	342	348	432	270	394	356	342	350	384	372	379
3	352	340	349	376	354	364	356	338	348	390	380	385
4	---	---	---	364	350	358	354	338	347	398	388	393
5	---	---	---	366	350	360	354	338	347	402	394	398
6	---	---	---	372	358	366	350	338	346	404	394	400
7	---	---	---	372	346	365	350	340	347	398	356	374
8	340	332	336	370	352	361	350	346	348	362	342	353
9	350	330	340	366	350	358	352	344	349	354	340	348
10	348	334	343	364	348	357	354	342	349	358	328	348
11	352	328	342	362	346	355	354	342	349	358	332	352
12	---	---	---	362	350	356	362	352	357	358	346	354
13	---	---	---	362	352	358	368	362	364	358	336	352
14	---	---	---	362	358	360	372	366	368	366	356	360
15	---	---	---	364	360	362	374	364	369	372	364	367
16	---	---	---	366	360	364	372	360	367	376	368	372
17	---	---	---	364	354	360	372	360	366	372	354	363
18	---	---	---	364	352	359	372	360	367	358	344	351
19	---	---	---	364	352	359	374	370	372	362	332	352
20	---	---	---	364	352	359	374	366	372	362	334	353
21	---	---	---	364	346	360	376	362	370	366	340	357
22	---	---	---	368	350	359	374	358	367	370	330	358
23	---	---	---	360	340	350	370	360	367	370	340	358
24	---	---	---	352	350	351	374	362	369	366	348	359
25	---	---	---	352	346	351	374	358	367	366	350	361
26	---	---	---	354	342	349	372	350	366	370	356	365
27	---	---	---	354	342	348	376	366	371	374	352	367
28	---	---	---	354	340	348	384	372	379	376	352	367
29	---	---	---	354	340	349	386	378	382	374	350	363
30	416	382	399	356	344	351	394	380	388	356	332	348
31	420	398	411	---	---	---	394	378	387	352	338	349
MONTH	420	328	358	434	222	357	394	338	363	404	328	364

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	350	332	345	368	358	363	464	290	382	468	454	463
2	360	342	351	372	364	368	458	274	331	460	446	452
3	358	280	337	376	368	372	324	218	290	480	458	465
4	356	318	334	378	366	373	466	270	412	480	468	473
5	350	286	317	380	370	376	470	288	416	486	466	481
6	350	288	325	384	376	381	---	---	---	486	480	484
7	354	334	345	386	374	381	---	---	---	488	470	479
8	346	330	339	386	374	381	---	---	---	484	462	474
9	344	340	343	388	376	383	---	---	---	474	460	467
10	360	340	350	390	384	387	---	---	---	474	458	470
11	362	340	357	390	386	389	---	---	---	478	462	473
12	364	342	353	396	384	390	---	---	---	480	460	474
13	350	322	341	402	388	397	---	---	---	490	454	469
14	352	336	346	404	398	401	472	458	469	478	432	462
15	354	328	344	404	396	400	486	472	478	486	478	482
16	344	330	337	406	394	400	486	474	480	---	---	---
17	342	320	336	406	398	403	488	478	483	520	486	506
18	340	322	332	410	398	405	494	488	490	528	492	507
19	338	320	328	412	390	405	498	486	493	520	506	513
20	344	332	338	408	402	406	500	480	496	518	510	514
21	346	336	340	408	390	399	504	492	498	516	496	507
22	348	334	341	400	388	394	504	458	487	508	486	498
23	348	326	340	404	388	396	470	448	462	498	482	490
24	346	332	338	402	386	395	470	434	452	492	476	484
25	348	334	343	398	388	394	472	412	454	486	474	479
26	356	342	351	402	392	398	472	446	456	488	466	476
27	360	354	357	404	394	400	478	460	468	478	454	464
28	362	350	358	408	402	405	488	478	483	476	464	470
29	---	---	---	416	400	409	494	458	476	478	464	471
30	---	---	---	430	408	418	468	450	460	470	458	463
31	---	---	---	458	406	428	---	---	---	419	403	411
MONTH	364	280	342	458	358	393	504	218	451	528	403	477

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.°C), RECORDER MAXIMUM, MINIMUM, AND MEAN,
WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	416	405	410	340	314	331	448	436	445	414	400	407
2	419	410	414	348	330	341	452	434	444	431	408	417
3	412	395	405	350	326	343	448	432	440	468	415	436
4	400	388	393	---	---	---	442	434	438	432	372	398
5	400	390	395	---	---	---	---	---	---	463	372	409
6	400	391	395	---	---	---	---	---	---	449	373	393
7	405	389	398	---	---	---	---	---	---	444	404	429
8	401	385	393	394	386	389	432	416	424	432	394	413
9	397	386	390	394	381	387	430	428	429	403	386	394
10	398	388	393	388	366	377	430	414	424	401	384	392
11	407	383	396	377	337	357	436	408	421	403	385	392
12	402	373	390	376	362	368	432	390	425	407	381	394
13	413	390	399	386	372	378	430	398	412	388	370	378
14	401	390	396	391	381	386	424	412	416	382	372	377
15	396	378	392	398	372	388	430	420	426	408	369	385
16	392	382	387	408	390	399	438	422	431	410	353	396
17	392	377	384	420	406	411	458	430	442	415	351	395
18	387	373	379	432	409	422	466	420	449	411	368	394
19	380	354	367	---	---	---	474	438	461	386	368	374
20	361	335	347	---	---	---	460	440	451	390	376	382
21	346	334	339	---	---	---	484	400	435	387	376	382
22	346	334	339	435	389	422	506	412	458	400	379	390
23	342	335	340	433	422	427	532	490	505	407	394	399
24	342	327	333	440	429	433	512	492	501	403	390	399
25	332	320	324	449	434	441	518	500	506	465	389	411
26	325	311	317	461	450	455	528	492	511	429	399	410
27	318	310	314	463	452	458	446	398	426	413	395	402
28	320	310	316	463	434	452	436	360	389	406	389	396
29	318	311	314	448	419	435	425	387	412	400	382	390
30	326	311	319	476	440	464	409	399	403	397	379	386
31	---	---	---	462	432	450	411	397	404	---	---	---
MONTH	419	310	369	476	314	405	532	360	440	468	351	397
YEAR	532	218	393									

WATER TEMPERATURE (DEG.°C), (ONCE-DAILY MEASUREMENT),
WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	8.0	5.5	3.0	3.0	6.5	7.0	16.0	15.0	21.0	20.0	19.0
2	15.0	7.0	3.5	6.0	4.5	9.0	8.5	16.5	15.0	19.0	19.5	19.0
3	14.0	12.0	3.5	6.0	4.5	10.0	8.5	15.0	18.0	20.0	20.0	20.0
4	14.0	9.0	4.0	4.0	5.0	9.0	7.0	13.0	14.0	22.5	21.5	19.0
5	13.5	9.0	4.5	7.0	6.0	9.0	6.0	14.0	17.0	23.0	20.0	17.0
6	15.0	9.0	6.0	5.5	5.0	9.0	7.5	13.5	17.5	21.5	22.0	17.0
7	14.5	9.0	5.0	4.0	5.0	7.0	9.0	14.0	18.5	24.5	21.0	18.0
8	14.0	9.5	5.0	5.0	4.5	5.5	10.0	13.0	19.0	20.5	21.0	18.0
9	14.0	8.5	6.0	4.0	5.0	10.0	10.0	11.5	19.0	20.5	20.0	16.0
10	14.0	9.0	5.0	4.5	5.5	10.0	11.0	12.0	18.0	20.0	20.0	18.5
11	12.0	8.5	5.5	2.0	5.0	10.0	15.0	13.0	20.0	22.0	20.0	18.0
12	12.0	8.5	5.5	4.0	6.5	11.0	12.0	14.0	21.0	21.5	19.0	20.0
13	12.5	10.0	5.0	5.0	7.5	10.0	13.0	14.0	19.0	21.0	19.0	16.0
14	11.0	9.5	4.5	4.5	7.5	7.5	14.0	13.5	18.5	20.0	19.0	16.0
15	14.0	8.0	7.0	4.0	4.5	7.0	9.5	14.5	15.5	21.0	20.0	16.5
16	10.0	7.0	7.0	3.0	7.0	11.0	11.0	13.0	15.5	21.0	20.0	17.0
17	12.5	8.5	6.5	4.0	9.5	11.0	12.0	13.0	16.0	21.0	19.0	16.0
18	8.0	8.0	7.0	3.0	11.0	11.0	13.0	12.0	17.0	21.5	19.0	17.0
19	8.0	8.0	4.0	6.5	11.0	12.0	11.0	13.5	18.0	22.0	19.5	17.0
20	13.0	7.5	3.0	5.5	5.0	8.0	12.0	13.5	18.0	21.0	20.0	16.0
21	13.5	7.0	3.0	5.0	4.0	5.5	12.0	14.0	18.0	21.5	21.0	16.0
22	13.0	3.5	5.0	5.0	7.0	6.0	12.5	13.5	19.0	21.0	24.0	16.5
23	12.0	6.0	6.0	5.5	4.0	6.5	13.5	13.5	19.5	20.0	19.0	16.5
24	11.5	5.0	4.0	2.5	4.0	8.0	14.0	15.0	19.0	20.0	20.0	15.5
25	8.0	5.5	3.5	3.5	4.0	7.0	14.5	15.0	20.0	24.0	19.5	15.0
26	8.0	6.0	7.0	5.0	4.5	8.0	15.5	15.5	19.5	20.0	19.0	15.0
27	7.0	5.0	4.5	4.5	5.0	8.5	15.0	17.0	19.5	19.5	19.5	15.0
28	8.5	6.5	4.5	4.0	4.0	7.0	15.0	17.5	19.0	19.0	18.0	15.5
29	10.0	3.0	7.0	6.0	---	6.0	14.5	14.5	19.5	20.0	20.0	15.5
30	11.0	6.5	3.5	5.0	---	8.0	14.5	15.0	20.0	19.5	19.5	16.5
31	7.0	---	4.0	4.0	---	7.0	---	15.0	---	20.0	20.0	---
MEAN	12.0	7.5	5.0	4.5	5.5	8.5	11.5	14.0	18.0	21.0	20.0	17.0

WTR YR 1981 MEAN 12.0 MAX 24.5 MIN 2.0

RIO GRANDE BASIN
08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.0	14.5	17.0	11.5	7.5	9.5	7.0	5.0	6.0	5.0	2.5	4.0
2	17.5	14.5	16.0	11.5	8.5	10.0	6.0	4.0	5.5	5.0	2.5	4.0
3	18.0	14.0	16.0	11.5	9.0	10.5	6.0	4.0	5.0	5.0	2.5	4.0
4	18.5	14.0	16.5	12.0	9.0	10.5	7.5	4.0	5.0	4.5	2.5	4.0
5	18.0	13.5	16.0	11.5	9.0	10.5	6.5	4.5	5.5	6.5	4.0	5.0
6	18.5	14.5	16.5	11.5	9.0	10.5	7.0	5.5	6.5	5.0	2.5	4.0
7	18.0	14.0	16.0	12.0	9.0	11.0	6.5	5.0	6.0	3.5	1.5	3.0
8	18.0	13.5	16.0	11.5	9.5	10.5	5.5	4.5	5.0	4.5	1.0	3.0
9	18.0	13.5	16.0	11.5	9.0	10.0	5.5	3.5	4.5	4.5	1.0	3.0
10	17.0	13.5	15.0	10.5	8.5	10.0	4.5	2.5	3.5	4.0	1.5	3.0
11	16.0	11.5	14.0	10.5	8.5	9.5	5.0	2.0	3.5	4.0	.5	2.5
12	16.5	12.5	14.5	11.0	8.5	10.0	5.0	2.5	4.0	4.0	1.5	3.0
13	17.0	13.5	15.0	11.5	9.5	10.5	5.0	3.5	4.5	4.5	1.0	3.0
14	15.5	11.5	14.0	10.5	8.5	9.5	6.5	4.0	5.0	3.5	.0	2.0
15	14.0	12.0	13.0	8.5	7.5	8.0	6.0	4.0	5.5	3.5	.0	2.0
16	11.5	9.0	10.5	8.0	6.5	7.0	6.0	4.0	5.0	2.5	1.0	2.0
17	12.0	7.0	9.5	8.0	6.0	7.0	6.0	4.0	5.0	3.5	1.0	2.5
18	12.0	7.5	10.0	7.5	5.0	6.5	6.0	3.5	5.0	4.5	2.0	3.0
19	12.5	7.5	10.0	7.5	5.0	6.5	5.0	3.0	3.5	6.0	2.5	4.0
20	12.5	7.5	10.0	7.0	4.5	6.0	4.5	2.5	3.5	5.0	1.5	3.5
21	13.0	7.5	10.5	7.0	4.5	6.0	4.0	2.5	3.5	4.0	.5	2.5
22	12.0	8.0	10.0	6.0	4.0	5.5	4.5	2.5	3.5	4.5	.5	2.5
23	12.0	8.0	10.0	6.5	4.0	5.5	5.5	3.0	4.0	5.0	.5	3.0
24	10.5	6.5	8.5	6.0	5.0	5.5	5.0	3.0	4.0	5.0	1.0	3.5
25	10.0	6.0	8.0	6.0	4.5	5.0	4.5	2.5	3.5	4.5	1.0	3.0
26	9.0	7.0	8.0	6.0	4.0	5.0	5.5	3.0	4.5	4.0	.0	2.5
27	8.5	6.5	7.5	5.5	4.0	4.5	6.0	3.5	4.5	4.0	.0	2.5
28	8.5	6.0	7.0	6.0	3.5	4.5	5.5	3.5	4.5	3.5	1.0	2.5
29	10.0	5.5	8.0	6.5	4.0	5.5	6.5	4.5	5.5	5.5	1.0	3.5
30	10.5	6.0	8.5	6.5	4.5	5.5	5.5	3.5	4.5	4.5	1.0	3.0
31	11.0	7.0	9.0	---	---	---	5.0	3.0	4.5	5.0	2.5	3.5
MONTH	19.0	5.5	12.0	12.0	3.5	8.0	7.5	2.0	4.5	6.5	.0	3.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.5	.5	2.5	9.5	6.5	8.0	13.0	7.0	10.0	20.0	15.5	18.0
2	3.5	.0	2.0	8.5	6.0	7.5	11.5	8.5	10.0	19.5	16.0	18.0
3	3.5	.0	2.0	9.5	6.0	7.5	10.5	8.0	9.0	17.0	14.5	16.0
4	4.5	1.0	3.0	8.5	5.0	7.0	10.5	6.5	9.0	17.0	12.5	15.0
5	5.0	1.0	3.0	8.5	4.5	6.5	11.5	5.5	9.0	16.0	13.0	14.5
6	4.5	1.0	3.0	8.5	6.0	7.5	13.0	7.5	10.5	17.0	13.0	15.0
7	5.5	1.5	3.5	7.5	4.5	6.5	14.0	9.0	11.5	18.0	13.5	15.5
8	5.0	1.0	3.5	9.0	4.5	7.0	15.5	9.5	12.5	16.5	12.5	14.5
9	4.5	2.5	3.5	10.0	5.0	7.5	---	---	---	16.5	11.0	14.0
10	5.5	2.5	3.5	9.5	7.0	8.0	---	---	---	16.5	11.5	14.0
11	4.5	.0	2.5	9.5	7.0	8.5	---	---	---	16.5	13.0	15.0
12	5.5	1.0	3.5	11.0	7.0	9.0	---	---	---	17.5	13.0	15.5
13	6.0	1.5	4.0	10.5	7.0	9.0	---	---	---	19.0	13.5	16.0
14	6.5	2.0	4.5	9.0	7.5	8.0	13.5	11.5	12.5	19.0	13.0	16.0
15	7.5	2.5	5.0	11.0	5.5	8.5	13.0	9.0	11.5	17.0	14.0	15.0
16	8.5	3.5	6.0	11.0	6.5	9.0	14.5	10.5	13.0	15.5	12.5	14.0
17	8.5	4.0	6.5	11.0	7.0	9.0	15.5	12.0	14.0	16.5	12.5	14.0
18	10.0	5.0	7.5	10.5	5.0	8.0	15.0	13.0	13.5	18.5	12.0	15.5
19	10.0	5.0	7.5	11.0	6.0	9.0	15.5	11.5	13.5	17.5	13.0	15.5
20	9.0	5.0	7.0	9.5	7.0	8.0	15.5	11.5	13.5	16.5	13.0	14.5
21	7.0	4.0	5.5	9.5	5.0	7.5	15.5	11.5	13.5	18.0	13.0	15.5
22	7.0	2.5	5.0	11.5	5.5	8.5	17.0	12.0	14.5	17.0	13.5	15.5
23	8.0	3.0	5.5	12.5	6.5	9.5	18.5	13.5	16.0	17.0	13.5	15.5
24	8.5	3.5	6.5	11.0	7.5	9.5	19.0	13.5	16.0	18.5	15.0	17.0
25	8.5	4.0	6.5	12.5	6.5	9.5	20.5	14.0	17.0	19.0	15.0	17.5
26	9.0	4.5	7.0	12.0	7.5	10.0	19.0	15.5	17.5	20.5	15.5	18.0
27	7.5	5.0	6.5	13.0	7.5	10.5	19.5	14.5	17.0	22.0	16.5	19.0
28	9.0	3.5	6.5	9.5	7.0	8.0	18.0	14.0	16.0	19.5	16.5	17.5
29	---	---	---	12.0	6.0	9.0	18.0	14.0	16.0	16.5	14.0	15.5
30	---	---	---	12.5	7.5	10.0	20.0	14.0	17.5	18.5	14.5	16.5
31	---	---	---	12.5	7.0	10.0	---	---	---	20.0	14.5	17.0
MONTH	10.0	.0	4.5	13.0	4.5	8.5	20.5	5.5	13.5	22.0	11.0	16.0

WATER-QUALITY RECORDS

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	17.0	14.5	16.0	22.5	21.0	21.5	21.5	19.0	20.5	22.5	18.5	20.5
2	19.5	14.5	17.0	24.0	18.5	21.5	23.5	19.0	21.5	22.5	18.5	20.5
3	19.0	15.5	17.0	22.0	19.5	21.0	23.0	20.0	22.0	21.5	19.0	20.5
4	20.0	13.5	17.0	---	---	---	24.5	20.5	22.0	20.5	18.0	19.5
5	20.0	17.0	18.5	---	---	---	---	---	---	19.5	18.0	18.5
6	22.0	17.0	19.5	---	---	---	---	---	---	20.5	16.5	19.0
7	24.0	18.0	21.0	---	---	---	---	---	---	19.5	17.5	18.5
8	24.0	18.5	21.5	24.5	20.0	22.0	24.5	18.5	21.5	19.0	17.0	18.0
9	24.5	18.5	21.5	24.5	20.0	22.5	23.0	19.0	21.0	21.5	16.5	19.0
10	23.5	18.0	21.0	25.5	20.0	22.5	23.5	19.0	21.0	21.5	16.0	19.5
11	24.5	19.5	22.5	25.0	21.0	22.5	21.0	16.5	20.0	21.0	17.5	19.5
12	25.0	20.5	22.5	25.0	21.0	23.0	22.5	18.5	20.0	20.0	17.5	19.0
13	23.5	19.0	21.5	25.0	20.5	23.0	21.0	17.5	19.5	19.0	16.5	17.5
14	21.0	17.5	19.5	26.0	19.5	22.5	23.0	18.0	20.5	19.0	17.0	18.0
15	20.0	15.0	17.5	24.0	20.5	22.0	22.5	19.0	21.0	20.0	16.5	18.5
16	19.5	15.5	17.5	25.5	20.5	23.0	22.5	19.0	21.0	19.5	17.0	18.0
17	21.0	15.5	18.5	24.0	20.5	22.5	23.5	17.5	20.5	19.0	16.0	17.5
18	21.0	16.5	19.0	26.5	21.0	22.5	23.0	18.0	20.5	20.5	16.5	18.5
19	21.5	17.0	19.5	---	---	---	25.0	18.5	22.0	19.5	16.5	18.5
20	22.0	17.0	20.0	---	---	---	25.5	19.5	22.5	20.0	16.5	18.5
21	22.0	17.5	20.0	---	---	---	25.0	20.0	22.0	20.5	16.5	18.5
22	22.0	18.0	20.0	24.5	20.0	21.5	25.0	20.5	22.0	19.5	17.0	18.5
23	20.5	19.0	20.0	22.5	19.5	20.5	22.0	19.5	21.0	18.0	16.0	17.0
24	22.5	18.5	20.5	23.0	19.0	21.0	21.5	19.5	20.5	18.0	15.5	17.0
25	22.0	19.0	20.5	23.5	18.0	21.5	22.0	19.0	20.5	19.0	15.5	17.5
26	22.0	19.0	20.5	22.5	19.0	21.0	22.0	19.0	21.0	19.0	15.0	17.5
27	22.5	18.0	20.5	21.0	19.0	20.0	21.5	19.0	20.5	18.5	15.0	17.0
28	20.5	17.5	19.5	22.5	18.5	20.5	22.0	18.0	20.0	19.0	15.5	17.5
29	22.0	19.0	20.5	22.0	19.0	20.5	23.0	19.5	21.5	19.5	16.0	17.5
30	23.0	19.0	21.0	22.0	19.0	20.5	22.0	19.0	21.0	19.0	16.5	17.5
31	---	---	---	23.5	19.5	21.5	21.5	19.5	20.5	---	---	---
MONTH	25.0	13.5	19.5	26.5	18.0	21.5	25.5	16.5	21.0	22.5	15.0	18.5
YEAR	26.5	.0	12.5									

RIO GRANDE BASIN
08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	945	1820	315	365	275	1110	275	846	23	35	41	73
2	415	1000	727	2200	299	1200	285	800	45	68	60	106
3	335	772	505	1620	309	1220	195	632	58	80	57	105
4	248	558	555	1870	280	1120	227	748	41	58	62	109
5	222	500	270	765	319	1290	203	669	28	39	76	139
6	245	552	390	1140	310	1220	160	510	24	34	78	142
7	530	1120	880	3540	225	887	19	36	31	47	90	159
8	226	416	320	1110	205	797	48	81	28	42	66	113
9	128	206	330	1140	252	803	66	105	35	54	69	116
10	100	146	450	1560	170	496	56	76	52	80	80	136
11	86	100	1250	4290	121	333	36	52	42	62	90	155
12	57	55	385	1340	1650	5300	51	75	36	52	102	177
13	51	47	535	1920	1320	4990	58	87	33	45	96	164
14	50	45	435	1570	1500	5710	88	144	36	52	116	203
15	133	129	330	1200	318	1240	106	176	31	47	98	176
16	455	475	410	1490	265	1010	123	230	31	47	108	189
17	215	214	410	1490	233	849	71	114	32	50	230	402
18	59	53	385	1410	197	691	29	41	35	55	230	414
19	40	34	1060	4040	225	802	28	40	50	84	165	298
20	48	41	605	2370	328	1270	52	76	81	150	242	444
21	45	39	350	1320	270	1030	63	97	84	161	300	543
22	77	81	240	868	206	795	52	78	71	130	41	73
23	46	44	285	1030	248	924	49	75	57	103	32	55
24	34	32	290	1080	185	644	32	50	40	72	33	56
25	34	32	305	1190	180	642	29	46	41	72	40	67
26	25	22	320	1200	620	2210	36	56	38	67	59	92
27	22	20	260	955	330	1160	40	59	41	73	43	65
28	27	27	385	1440	200	707	36	53	36	63	36	55
29	29	27	288	1140	220	796	29	44	---	---	103	158
30	50	52	293	1160	1600	7600	32	47	---	---	84	121
31	225	331	---	---	920	4840	28	42	---	---	34	43
TOTAL	---	8990	---	47813	---	53686	---	6185	---	1922	---	5148

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	65	77	78	137	112	281	2450	7190	560	1770	350	283
2	48	55	196	531	132	353	9150	28400	494	1590	3400	2930
3	26	29	495	2070	105	292	416	589	485	1490	2400	2180
4	112	143	595	3130	96	275	345	336	229	237	2400	2620
5	133	158	310	1360	115	332	2100	1940	170	120	19400	37500
6	112	108	208	753	479	1250	155	128	85	56	8970	29000
7	48	43	130	386	105	187	115	89	65	43	1500	3220
8	100	81	101	272	67	115	2690	5880	400	475	380	587
9	21	16	73	156	53	85	1990	3410	241	261	200	241
10	18	15	55	99	43	63	495	814	1800	2090	160	179
11	18	14	61	98	35	44	170	206	4650	17800	149	161
12	15	10	60	86	31	37	764	1390	3860	13800	117	122
13	23	19	66	84	78	118	630	968	8100	28400	109	112
14	230	326	60	72	162	433	525	826	575	1100	94	94
15	760	2300	58	62	80	204	5980	8070	335	548	128	145
16	400	1440	44	46	90	238	6730	9950	215	297	177	217
17	190	523	65	79	105	292	630	980	195	265	665	891
18	135	386	58	75	133	395	373	446	140	162	500	628
19	156	446	79	157	114	307	265	250	120	125	127	137
20	147	409	141	330	139	383	260	236	100	99	102	101
21	117	296	129	318	242	836	140	125	286	358	71	63
22	83	146	238	765	195	669	3000	10300	810	892	70	58
23	81	115	134	398	214	786	1150	3790	1840	5020	70	59
24	79	109	81	185	156	518	850	2820	890	2600	84	78
25	70	89	65	120	148	468	1120	3810	660	1940	217	211
26	126	205	48	72	154	499	1560	5480	400	945	217	195
27	117	228	50	71	150	490	2370	8570	300	335	67	54
28	103	210	56	80	140	457	730	2500	1470	1530	56	43
29	98	167	101	211	138	428	550	1660	400	471	56	41
30	96	170	97	228	98	156	457	1300	250	296	51	39
31	---	---	98	235	---	---	332	840	160	137	---	---
TOTAL	---	8333	---	12666	---	10991	---	113293	---	85252	---	82189

TOTAL LOAD FOR YEAR: 436468 TONS.

08313350 RITO DE LOS FRIJOLES IN BANDELIER NATIONAL MONUMENT, NM

LOCATION.--Lat 35°46'35", long 106°16'06", Sandoval County, Hydrologic Unit 13020201, in Bandelier National Monument, on right bank 800 ft (240 m) downstream from Monument headquarters, 6.5 mi (10.5 km) south of Los Alamos, 18.5 mi (29.8 km) northwest of Santa Fe, and at mile 2.0 (3.2 km).
DRAINAGE AREA.--18.1 mi^2 (46.9 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1963 to September 1969, July 1977 to current year.
GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,035 ft (1,839 m), from topographic map. Prior to Oct. 3, 1979, at site 1.0 mi (1.6 km) upstream at different datum.
REMARKS.--Water-discharge records fair. One small diversion from left bank about 1.0 mi (1.6 km) upstream for irrigation of small orchard. The La Mesa forest fire which occurred during mid-June 1977 burned about 40% of the forest cover of this watershed and evidently changed the flow characteristics.
AVERAGE DISCHARGE.--10 years (water years 1964-69, 1978-81), 1.45 ft^3/s (0.041 m^3/s), 1,050 acre-ft/yr (1.29 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,030 ft^3/s (85.8 m^3/s) July 21, 1978, gage height, 6.34 ft (1.932 m), site and datum then in use, from rating curve extended above 20 ft^3/s (0.57 m^3/s) on basis of slope-area measurements at gage heights 3.88 ft (1.183 m), 5.02 ft (1.530 m), and 6.34 ft (1.932 m); no flow Feb. 6, 1968, result of freezeup. The maximum discharge prior to the forest fire of June 1977 was 19 ft^3/s (0.54 m^3/s) June 18, 1965, gage height, 1.49 ft (0.454 m), site and datum then in use, from rating curve extended above 7.6 ft^3/s (0.22 m^3/s) on basis of theoretical rating.
EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 4.0 ft^3/s (0.11 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
July 1	1730	6.6	0.19	2.11	0.643	Sept. 1	1830	9.8	0.28	2.24	0.683
July 27	1730	8.2	.23	2.20	.671	Sept. 5	0200	*a28	.79	2.67	.814
Aug. 5	1815	5.4	.15	2.08	.634	Sept. 7	1845	6.2	.18	2.10	.640
Aug. 16	1630	4.6	.13	2.03	.619						

a From rating curve extended above 4.8 ft^3/s (0.14 m^3/s).

Minimum discharge, 0.05 ft^3/s (0.001 m^3/s June 15).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.23	.86	.91	.81	.52	1.0	1.5	1.3	.80	1.3	.31	.87
2	.22	.81	.87	.81	.83	1.1	1.5	2.2	.98	1.1	.42	.83
3	.25	.78	.87	.81	.99	1.9	1.5	1.7	.81	.61	.30	.54
4	.25	.75	.87	.81	1.2	1.3	1.5	1.5	.76	.44	.32	1.6
5	.23	.75	.87	.87	1.3	1.2	1.4	1.5	.67	.34	.76	5.3
6	.22	.75	.87	.83	1.3	1.1	1.3	1.6	.69	.32	.48	2.3
7	.27	.73	.87	.85	.99	1.1	1.3	1.5	.57	.42	.35	2.2
8	.27	.71	.96	.96	.97	1.0	1.4	1.4	.49	.72	.38	1.8
9	.27	.73	.76	.81	1.0	1.0	1.4	1.3	.45	.51	.49	1.5
10	.26	.69	.67	.84	.90	.94	1.4	1.3	.41	.40	.46	1.3
11	.28	.72	.95	.98	.73	.87	1.4	1.3	.39	.41	.68	1.2
12	.30	.71	1.0	1.0	1.1	1.2	1.4	1.2	.35	.43	.58	1.2
13	.33	.69	.94	.89	1.1	1.3	1.4	1.1	.33	.31	.45	1.2
14	.35	.77	.94	.73	1.0	1.2	1.6	1.1	.30	.26	.39	1.1
15	.77	.87	.89	.76	.98	1.2	2.1	1.1	.21	.52	.41	1.0
16	.68	.87	.87	1.1	.98	1.1	1.9	1.2	.11	.38	1.2	.98
17	.59	.86	.87	1.0	1.0	1.1	1.9	1.1	.23	.31	.87	.98
18	.64	.71	.87	.95	1.0	1.1	2.0	1.0	.22	.29	.62	.98
19	.64	.85	.87	.84	1.0	1.1	2.1	.94	.22	.24	.58	.85
20	.64	.81	.75	.70	1.0	1.2	2.1	.94	.20	.20	.53	.77
21	.64	.85	.70	.79	1.0	1.2	2.1	.90	.16	.15	.61	.69
22	.64	.77	1.0	1.0	.84	1.2	2.1	.84	.14	.13	.53	.66
23	.64	.92	.96	1.1	.98	1.2	2.1	.83	.35	.18	.45	.71
24	.64	.85	.89	1.1	.97	1.3	2.0	.82	.36	.15	.39	.92
25	.71	.76	.75	.95	.99	1.4	1.9	.81	.31	.17	.43	.87
26	.75	.66	.87	.90	1.0	1.4	1.7	.75	.26	.29	.39	.70
27	.86	.91	.87	1.0	1.0	1.4	1.6	.69	.22	1.3	.37	.64
28	.91	.96	.87	1.1	.97	1.5	1.5	.72	.26	1.1	.44	.55
29	.89	1.0	.87	1.0	---	1.6	1.6	.77	.42	.44	.37	.56
30	.87	.97	.87	.97	---	1.5	1.5	.81	.39	.31	.30	.64
31	.87	---	.81	.90	---	1.5	---	.81	---	.25	.37	---
TOTAL	16.11	24.07	26.93	28.16	27.64	38.21	50.2	35.03	12.06	13.98	15.23	35.44
MEAN	.52	.80	.87	.91	.99	1.23	1.67	1.13	.40	.45	.49	1.18
MAX	.91	1.0	1.0	1.1	1.3	1.9	2.1	2.2	.98	1.3	1.2	5.3
MIN	.22	.66	.67	.70	.52	.87	1.3	.69	.11	.13	.30	.54
AC-FT	32	48	53	56	55	76	100	69	24	28	30	70

CAL YR 1980 TOTAL 430.69 MEAN 1.18 MAX 4.6 MIN .08 AC-FT 854
WTR YR 1981 TOTAL 323.06 MEAN .89 MAX 5.3 MIN .11 AC-FT 641

08313350 RITO DE LOS FRIJOLES IN BANDELIER NATIONAL MONUMENT, NM--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1977 to current year.

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT						
10...	1600	.59	134	13.0	569	.91
NOV						
07...	1550	.69	129	7.0	7	.01
14...	1410	.81	127	5.0	2	.00
21...	1110	1.2	125	1.0	1	.00
DEC						
08...	1410	.94	104	.0	2	.01
JAN						
11...	1335	1.4	106	.0	6	.02
17...	0925	1.1	107	.0	0	.00
22...	1200	1.9	106	1.0	6	.03
28...	1120	1.0	106	.0	262	.71
30...	1355	1.3	103	1.0	3	.01
FEB						
02...	1410	1.4	106	.5	140	.53
06...	0950	1.8	126	.0	2	.01
16...	1235	.91	116	1.5	1	.00
27...	1035	1.0	112	2.0	0	.00
MAR						
02...	1244	.97	108	4.0	8	.02
05...	1015	1.2	112	2.0	0	.00
13...	1030	1.3	110	3.0	1	.00
16...	1200	1.1	111	7.0	2	.01
21...	1600	1.0	125	8.0	1	.00
28...	1430	1.6	119	2.0	3	.01
APR						
04...	1030	1.5	119	4.0	2	.01
11...	0830	1.3	121	1.0	2	.01
18...	0815	1.9	116	4.0	5	.03
25...	0845	1.9	114	3.0	7	.04
MAY						
01...	1300	1.0	118	9.0	10	.03
03...	1030	1.7	118	7.0	17	.08
08...	1045	1.5	122	9.0	14	.06
16...	0950	1.2	122	5.0	8	.03
26...	0820	.81	126	9.0	5	.01
JUN						
05...	0800	.69	125	10.0	6	.01
20...	1015	.25	131	12.0	3	.00
27...	1010	.25	131	16.0	3	.00

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
JUL						
04...	1130	.50	135	14.5	9	.01
12...	1315	.46	126	16.0	8	.01
19...	1550	.21	128	17.0	30	.02
26...	1100	.34	128	15.0	9	.01
AUG						
02...	1145	.42	127	13.0	192	.22
16...	1030	.46	126	9.0	11	.01
22...	1030	.54	127	12.0	7	.01
31...	1230	.31	125	10.0	6	.01
SEP						
07...	1530	2.4	126	8.0	119	.77
14...	1330	1.0	126	9.0	17	.05
21...	1430	.59	139	10.0	12	.02
26...	1330	.69	136	8.0	9	.02

08315500 MCCLURE RESERVOIR NEAR SANTA FE, NM

LOCATION.--Lat 35°41'18", long 105°50'06", in NE¼SW¼ sec.24, T.17 N., R.10 E., Santa Fe County, Hydrologic Unit 13020201, in Santa Fe National Forest, 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 37.1 (59.7 km).
DRAINAGE AREA.--17.4 mi^2 (45.1 km^2).
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. Prior to January 1980 at site on outlet tower.
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.
REMARKS.--Reservoir is formed by earthfill dam, completed in 1926, capacity, 561 acre-ft (692,000 m^3), raised 3 ft (0.9 m) in 1935, capacity, 650 acre-ft (801,000 m^3), and raised 36.5 ft (11.13 m) more in 1947, capacity, 2,615 acre-ft (3.22 hm^3) at gage height 96.6 ft (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 hm^3). Radial gates were removed during 1972, capacity, 2,615 acre-ft (3.22 hm^3). 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.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 3,140 acre-ft (3.87 hm^3) June 25, 1960, gage height, 103.7 ft (31.61 m); no contents Jan. 25 to May 8, 1951.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,600 acre-ft (1.97 hm^3) Oct. 1, gage height, 80.83 ft (24.637 m); minimum contents, 838 acre-ft (1.03 hm^3) Jan. 20,21; minimum gage height, 64.78 ft (19.745 m) Jan. 21.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Public Service Co. of New Mexico in 1947)

60	668	75	1,280
65	846	80	1,550
70	1,050	85	1,840

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1600	1390	1310	1020	847	864	904	1140	1200	985	1120	1170
2	1590	1390	1310	1010	848	866	907	1160	1200	992	1120	1160
3	1590	1380	1310	994	848	868	908	1180	1210	996	1120	1160
4	1580	1380	1310	979	849	869	910	1210	1210	998	1130	1160
5	1570	1370	1310	966	850	869	912	1220	1210	1000	1130	1160
6	1560	1370	1320	949	850	870	914	1240	1220	1000	1140	1160
7	1550	1360	1320	939	851	870	916	1250	1220	1010	1150	1150
8	1540	1360	1320	927	851	871	920	1250	1220	1010	1160	1150
9	1530	1350	1320	916	852	871	923	1250	1220	1020	1160	1150
10	1520	1340	1320	904	853	872	928	1250	1220	1020	1170	1150
11	1510	1340	1320	893	853	874	932	1250	1220	1030	1180	1150
12	1500	1330	1320	883	855	875	936	1250	1210	1030	1200	1140
13	1490	1330	1310	875	858	876	947	1250	1210	1030	1210	1140
14	1480	1320	1300	870	858	877	957	1250	1210	1030	1210	1140
15	1480	1320	1280	864	858	878	965	1240	1200	1040	1220	1130
16	1470	1310	1270	857	859	879	973	1250	1170	1050	1220	1130
17	1460	1310	1250	850	859	880	982	1240	1150	1060	1230	1130
18	1460	1300	1240	842	860	880	992	1240	1130	1070	1220	1120
19	1450	1300	1220	839	860	881	1000	1240	1110	1070	1220	1110
20	1450	1300	1210	838	860	882	1010	1230	1090	1080	1220	1110
21	1440	1300	1190	838	860	884	1020	1230	1060	1080	1210	1100
22	1440	1300	1180	839	861	885	1030	1230	1040	1090	1210	1090
23	1430	1300	1160	840	861	887	1040	1220	1020	1090	1210	1080
24	1430	1300	1150	841	861	888	1050	1220	994	1090	1200	1070
25	1420	1300	1130	841	862	889	1060	1210	972	1100	1190	1060
26	1420	1300	1120	843	862	891	1070	1210	963	1100	1190	1040
27	1410	1310	1100	843	862	893	1080	1200	964	1110	1190	1030
28	1410	1310	1090	844	863	895	1090	1200	965	1110	1190	1020
29	1400	1310	1070	844	---	897	1110	1200	970	1110	1180	1010
30	1400	1310	1060	846	---	899	1120	1200	977	1110	1180	1000
31	1390	---	1040	846	---	901	---	1200	---	1120	1170	---
MAX	1600	1390	1320	1020	863	901	1120	1250	1220	1120	1230	1170
MIN	1390	1300	1040	838	847	864	904	1140	963	985	1120	1000
(†)	77.15	75.50	69.66	65.00	65.44	66.41	71.55	73.26	68.24	71.38	72.63	68.78
(‡)	-210	-80	-270	-194	+17	+38	+219	+80	-223	+143	+50	-170

CAL YR 1980 MAX 2650 MIN 1040 ‡ -280
WTR YR 1981 MAX 1600 MIN 838 ‡ -600

† Gage height, in feet.
‡ Change in contents, in acre-feet.

08316000 SANTA FE RIVER NEAR SANTA FE, NM

LOCATION.--Lat 35°41'12", long 105°50'35", in NE¼SE¼ sec.23, T.17 N., R.10 E., Santa Fe County, Hydrologic Unit 13020201, 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 36.6 (58.9 km).
DRAINAGE AREA.--18.2 mi^2 (47.1 km^2).
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.
REVISED RECORDS.--WSP 1512: 1933, 1936-37(M), 1942, drainage area. WSP 1732: 1923, 1925. WDR NM-75-1: 1927.
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.
REMARKS.--Records good. Flow regulated by McClure Reservoir (station 08315500), completed in 1926, raised in 1935 and again in 1947. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--68 years, 7.88 ft^3/s (0.223 m^3/s), 5,710 acre-ft/yr (7.04 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,500 ft^3/s (42.5 m^3/s) Aug. 14, 1921, gage height, 5.17 ft (1.576 m), site and datum then in use, from rating curve extended above 150 ft^3/s (4.2 m^3/s); minimum, 0.05 ft^3/s (0.001 m^3/s) Apr. 7, 8, 1981.
EXTREMES OUTSIDE PERIOD OF RECORD.--Peaks which probably exceeded 1,000 ft^3/s (28 m^3/s) occurred Aug. 19, 1872, and Sept. 29 or 30, 1904. Without regulation the flood of Sept. 23, 1929, might have exceeded 1,500 ft^3s (42 m^3/s).
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13 ft^3/s (0.37 m^3/s) June 16-24; maximum gage height, 1.97 ft (0.600 m) June 15-19, 21, 22; minimum discharge, 0.05 ft^3/s (0.001 m^3/s) Apr. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	4.0	.90	8.3	.67	.60	.14	.17	5.7	1.1	1.1	4.6
2	2.8	4.0	.90	8.3	.67	.60	.42	.18	5.7	1.1	1.0	4.6
3	5.7	4.0	.90	8.3	.67	.60	.42	.17	5.7	1.1	1.0	4.6
4	6.0	4.0	.90	8.1	.67	.60	.42	.17	5.7	1.1	1.0	4.6
5	6.0	4.0	.90	8.0	.67	.60	.42	.17	5.7	1.1	1.1	4.6
6	6.0	4.4	.90	8.0	.67	.60	.42	.16	5.7	1.1	1.1	4.6
7	6.0	4.4	.90	8.0	.67	.60	.28	2.2	5.7	1.1	1.1	4.6
8	6.0	4.4	.90	8.0	.67	.60	.17	5.7	5.7	1.2	1.1	4.6
9	6.0	4.4	.90	8.0	.67	.60	.20	5.7	5.7	1.2	1.1	4.6
10	6.0	4.4	.90	7.9	.67	.60	.19	5.7	5.7	1.2	1.1	4.6
11	6.1	4.4	.90	7.9	.67	.60	.20	5.7	5.7	1.1	1.1	4.6
12	6.1	4.4	4.0	7.7	.67	.60	.20	5.7	5.7	1.1	1.1	4.6
13	6.1	4.4	6.0	7.5	.67	.60	.22	5.7	5.7	1.1	1.1	4.6
14	4.9	4.4	6.0	3.8	.67	.60	.23	5.7	5.7	1.1	2.0	4.6
15	4.0	4.4	6.0	.67	.67	.60	.21	5.7	8.2	1.1	3.0	4.6
16	4.1	4.2	7.5	.67	.67	.60	.21	5.7	13	1.1	3.1	4.7
17	4.2	4.2	8.8	.67	.67	.60	.21	5.7	13	1.1	4.4	6.1
18	4.2	4.2	8.7	.67	.67	.60	.23	5.7	13	1.0	5.7	7.3
19	4.1	4.2	8.6	.67	.67	.60	.21	5.7	13	1.0	5.7	7.3
20	4.1	2.7	8.6	.67	.67	.60	.21	5.7	13	1.0	5.7	7.3
21	4.0	.97	8.6	.67	.67	.54	.21	5.7	13	.98	5.7	7.3
22	4.0	.89	8.6	.67	.67	.54	.21	5.7	13	.98	5.7	7.3
23	4.0	.89	8.6	.67	.67	.54	.21	5.7	13	1.0	4.3	7.3
24	4.0	.90	8.6	.67	.67	.54	.19	5.7	13	.99	4.6	7.3
25	4.0	.89	8.6	.67	.67	.47	.17	5.7	12	.98	4.6	7.2
26	4.0	.90	8.6	.67	.60	.42	.17	5.7	6.5	1.0	4.6	7.0
27	4.0	.90	8.5	.67	.60	.48	.17	5.7	1.2	.98	4.6	7.0
28	4.0	.90	8.3	.67	.60	.48	.17	5.7	1.1	1.0	4.6	7.0
29	4.0	.90	8.3	.67	---	.48	.17	5.7	1.1	1.0	4.6	7.0
30	3.8	.90	8.3	.67	---	.48	.17	5.7	1.1	.99	4.6	7.0
31	4.0	---	8.3	.67	---	.40	---	5.7	---	1.0	4.6	---
TOTAL	145.3	92.54	167.40	119.19	18.55	17.37	7.05	140.02	228.0	32.90	96.1	173.1
MEAN	4.69	3.08	5.40	3.84	.66	.56	.24	4.52	7.60	1.06	3.10	5.77
MAX	6.1	4.4	8.8	8.3	.67	.60	.42	5.7	13	1.2	5.7	7.3
MIN	2.8	.89	.90	.67	.60	.40	.14	.16	1.1	.98	1.0	4.6
AC-FT	288	184	332	236	37	34	14	278	452	65	191	343

CAL YR 1980 TOTAL 3483.53 MEAN 9.52 MAX 71 MIN .89 AC-FT 6910
WTR YR 1981 TOTAL 1237.52 MEAN 3.39 MAX 13 MIN .14 AC-FT 2450

08316500 NICHOLS RESERVOIR NEAR SANTA FE, NM

LOCATION.--Lat 35°41'24", long 105°52'46", in SE¼NE¼ sec.21, T.17 N., R.10 E., Santa Fe County, Hydrologic Unit 13020201, in Santa Fe National Forest, 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 34.4 (55.3 km).
DRAINAGE AREA.--22.8 mi^2 (59.1 km^2).
PERIOD OF RECORD.--March 1943 to September 1965 (monthend contents only), October 1965 to current year. Prior to January 1980 at site on outlet tower.
GAGE.--Water-stage recorder. Datum of gage is 7,313.2 ft (2,229.06 m) National Geodetic Vertical Datum of 1929.
REMARKS.--Reservoir is formed by earthfill dam. No contents prior to Mar. 16, 1943. Capacity, 685 acre-ft (845,000 m^3) 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 m^3). 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.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 836 acre-ft (1.03 hm^3) June 8, 1952, gage height, 171.8 ft (52.36 m); minimum, 16 acre-ft (19,700 m^3) Feb. 11 to Mar. 10, 1944, Feb. 1-19, 1948.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 465 acre-ft (573,000 m^3) Nov. 7, gage height, 158.87 ft (48.424 m); minimum observed, 206 acre-ft (254,000 m^3) May 11, gage height, 145.3 ft (44.29 m).

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Public Service Co. of New Mexico in 1943)

140	139	155	375
145	202	160	491
150	279		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	406	452	383	297	340	289	264	260	221	396	296	255
2	394	454	369	299	337	289	264	260	222	394	290	262
3	394	457	358	304	335	288	264	259	222	392	283	270
4	399	459	349	316	333	287	264	257	225	390	276	277
5	405	461	337	324	330	286	264	246	230	387	270	281
6	407	462	324	331	328	286	264	229	235	385	264	280
7	407	464	308	341	326	286	264	218	241	384	258	279
8	408	464	294	352	324	285	264	206	247	383	252	280
9	412	464	279	362	322	285	264	206	254	382	246	276
10	417	462	264	371	320	284	264	206	262	381	241	271
11	419	462	250	381	318	284	263	207	270	380	236	265
12	423	461	241	390	316	284	263	208	276	378	231	254
13	429	461	239	400	315	283	264	209	282	376	228	244
14	431	460	239	402	313	282	264	211	289	374	227	235
15	431	459	240	396	311	281	264	212	291	374	225	236
16	432	457	240	391	309	280	264	213	296	373	224	236
17	435	456	243	385	307	279	264	214	298	371	227	236
18	437	451	247	379	305	278	264	214	303	369	232	236
19	440	452	251	374	302	277	265	215	310	368	238	236
20	443	442	255	370	300	276	264	216	316	366	244	236
21	445	434	258	367	298	275	264	216	323	364	249	236
22	450	429	263	364	296	274	264	218	328	362	255	240
23	452	424	266	362	294	273	264	219	334	358	261	244
24	451	421	269	360	293	272	264	219	350	351	265	248
25	452	415	273	357	294	271	263	219	374	345	262	252
26	451	411	274	354	293	270	263	218	389	339	258	256
27	451	407	276	352	291	268	263	218	391	332	254	260
28	450	403	277	350	290	267	262	218	392	326	250	260
29	450	398	283	347	---	266	262	219	394	318	246	258
30	449	394	291	345	---	264	262	219	396	310	243	261
31	450	---	296	342	---	264	---	220	---	303	246	---
MAX	452	464	383	402	340	289	265	260	396	396	296	281
MIN	394	394	239	297	290	264	262	206	221	303	224	235
(†)	158.23	155.81	150.87	153.31	150.60	149.02	148.90	---	155.91	151.27	147.88	148.84
(‡)	+38	-56	-98	+46	-52	-26	-2	-42	+176	-93	-57	+15

CAL YR 1980 MAX 706 MIN 196 ‡ -203
WTR YR 1981 MAX 464 MIN 206 ‡ -151

† Gage height, in feet.
‡ Change in contents, in acre-feet.

08317200 SANTA FE RIVER ABOVE COCHITI LAKE, NM

LOCATION.--Lat 35°32'49", long 106°13'41", in NW¼ sec.8, T.15 N., R.7 E., Santa Fe County, Hydrologic Unit 13020201 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 Pena Blanca, and at mile 7.9 (12.7 km).
DRAINAGE AREA.--231 mi^2 (598 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1970 to current year.
GAGE.--Water-stage recorder. Altitude of gage is 5,505 ft (1,678 m), from topographic map.
REMARKS.--Water-discharge records good. 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 km^2) above station. Several observations of water temperature were made during the year. 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.
AVERAGE DISCHARGE.--11 years, 8.58 ft^3/s (0.243 m^3/s), 6,220 acre-ft/yr (7.67 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft^3/s (323 m^3/s) July 26, 1971, gage height, 9.58 ft (2.920 m), from rating curve extended above 160 ft^3/s (4.5 m^3/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.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,980 ft^3/s (56.1 m^3/s) at 2300 hours Aug. 11, gage height, 5.05 ft (1.539 m), no other peak above base of 300 ft^3/s (8.5 m^3/s); minimum, 1.0 ft^3/s (0.028 m^3/s) Sept. 29.

DISCHARGE MEASUREMENTS, IN CUBIC FEET PER SECOND, OF DITCH, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Nov. 18	0.25	Mar. 10	0	May 21	0.66	Aug. 10	0
Dec. 17	0	Apr. 6	1.1	June 8	.32	Aug. 13	0
Feb. 11	0	May 4	0	July 15	.05	Sept. 8	0

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	7.2	8.7	7.6	8.1	7.9	7.5	3.5	5.5	19	8.5	3.7
2	3.7	7.5	8.7	7.4	8.3	8.1	7.0	11	4.0	9.9	4.9	3.2
3	3.9	6.8	8.3	7.4	8.2	9.9	7.2	6.6	9.1	6.6	3.5	6.5
4	3.7	5.7	8.3	7.7	8.3	9.1	7.2	5.9	10	5.4	2.9	12
5	4.3	6.1	8.3	7.9	8.3	8.5	6.6	4.7	6.7	4.3	2.6	8.1
6	4.0	7.2	8.2	7.6	8.6	8.4	5.2	7.9	6.0	3.7	2.4	6.0
7	4.3	7.6	8.3	7.6	8.6	8.5	5.8	5.7	5.0	13	2.1	5.5
8	4.5	7.6	8.6	7.6	8.4	8.7	5.6	5.0	3.8	21	2.0	7.1
9	4.7	7.3	8.4	7.7	9.1	8.3	6.3	5.3	2.3	7.0	1.8	6.3
10	4.7	8.0	8.3	7.5	8.7	8.1	6.8	4.7	1.7	6.1	19	5.6
11	3.9	7.5	8.4	7.4	8.3	9.9	6.4	4.6	2.2	4.8	89	5.3
12	4.4	7.5	8.5	7.9	8.4	9.0	6.5	4.7	2.6	4.2	86	4.9
13	4.1	7.7	8.4	8.0	8.3	7.7	8.5	3.9	2.4	4.0	5.3	5.0
14	3.4	7.2	8.2	7.7	8.3	8.5	7.8	3.8	2.5	3.6	3.9	6.1
15	4.9	7.5	8.4	7.6	8.5	8.4	9.0	4.2	2.8	17	3.8	5.5
16	5.5	7.8	8.5	7.6	7.2	7.3	7.8	5.4	2.9	5.1	3.7	4.6
17	5.7	7.7	8.5	7.9	8.1	7.1	7.3	5.4	2.4	4.2	3.2	3.4
18	6.1	7.8	8.5	8.1	8.0	7.5	7.2	4.5	2.3	2.8	12	4.6
19	6.6	8.1	8.4	8.2	8.1	7.6	8.0	4.6	2.4	2.5	4.7	4.7
20	6.6	8.3	8.7	8.2	7.5	7.3	6.4	4.2	2.2	2.3	4.1	3.8
21	6.9	8.1	8.5	7.6	7.6	7.9	6.2	5.0	2.1	1.9	3.9	2.8
22	6.8	8.1	8.7	7.8	7.6	7.9	6.1	4.3	1.9	1.7	4.1	3.0
23	5.5	7.8	8.7	8.1	7.0	7.5	5.7	3.6	2.0	1.6	4.1	4.2
24	6.4	8.8	8.5	7.9	7.7	7.4	5.0	3.7	1.6	2.3	3.7	4.3
25	5.9	9.3	7.9	7.9	7.3	6.8	5.5	3.0	1.8	1.8	2.5	5.5
26	6.6	10	7.5	8.0	7.8	6.4	4.2	3.1	2.4	3.0	3.1	4.6
27	7.0	9.3	7.6	8.4	7.9	7.7	4.1	2.2	2.8	4.1	3.0	4.2
28	6.8	8.4	7.9	8.3	7.8	8.3	4.3	3.2	2.2	3.4	3.8	3.4
29	7.1	8.6	7.4	8.3	---	8.5	3.9	6.7	3.9	4.0	3.1	2.8
30	6.5	8.6	7.9	8.3	---	8.0	3.7	7.5	6.6	3.7	3.2	2.8
31	7.4	---	7.8	8.3	---	7.4	---	6.2	---	4.5	2.6	---
TOTAL	164.9	235.1	257.0	243.5	226.0	249.6	188.8	154.1	106.1	178.5	302.5	149.5
MEAN	5.32	7.84	8.29	7.85	8.07	8.05	6.29	4.97	3.54	5.76	9.76	4.98
MAX	7.4	10	8.7	8.4	9.1	9.9	9.0	11	10	21	89	12
MIN	3.0	5.7	7.4	7.4	7.0	6.4	3.7	2.2	1.6	1.6	1.8	2.8
AC-FT	327	466	510	483	448	495	374	306	210	354	600	297

CAL YR 1980 TOTAL 3168.4 MEAN 8.66 MAX 47 MIN 1.6 AC-FT 6280
WTR YR 1981 TOTAL 2455.6 MEAN 6.73 MAX 89 MIN 1.6 AC-FT 4870

08317200 SANTA FE RIVER ABOVE COCHITI LAKE NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-75, 1979, 1981.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
MAR										
10...	1045	8.0	755	7.4	--	6.0	--	140	.00	44
APR										
06...	1400	4.4	716	7.4	--	17.0	--	--	--	--
MAY										
04...	0842	5.7	748	7.3	--	11.0	--	--	--	--
21...	1130	4.1	768	8.5	19.0	18.0	67	150	.00	47
JUN										
08...	1123	3.7	740	8.6	33.5	24.5	--	--	--	--
JUL										
15...	1038	20	336	7.2	26.0	21.5	--	--	--	--
AUG										
13...	1200	6.2	590	8.3	22.5	23.5	--	180	.00	59
SEP										
08...	1100	5.7	650	8.2	20.0	16.5	--	--	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
MAR										
10...	8.1	92	3.3	8.2	270	47	30	.7	26	419
APR										
06...	--	--	--	--	--	--	--	--	--	--
MAY										
04...	--	--	--	--	--	--	--	--	--	--
21...	7.7	99	3.5	9.8	280	50	38	.7	25	454
JUN										
08...	--	--	--	--	--	--	--	--	--	--
JUL										
15...	--	--	--	--	--	--	--	--	--	--
AUG										
13...	7.5	65	2.2	7.3	220	57	28	.6	22	379
SEP										
08...	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
MAR										
10...	--	--	--	--	--	--	--	260	20	--
APR										
06...	--	--	--	--	--	--	--	--	--	--
MAY										
04...	--	--	--	--	--	--	--	--	--	--
21...	2.0	1.9	12.0	3.0	17	8.00	7.00	290	50	28
JUN										
08...	--	--	--	--	--	--	--	--	--	--
JUL										
15...	--	--	--	--	--	--	--	--	--	--
AUG										
13...	--	--	--	--	--	--	--	170	<10	--
SEP										
08...	--	--	--	--	--	--	--	--	--	--

08317200 SANTA FE RIVER ABOVE COCHITI LAKE NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
APR						
06...	1400	4.4	17.0	26	.31	84
MAY						
21...	1130	4.1	18.0	29	.32	82
AUG						
13...	1200	6.2	23.5	265	4.4	99

08317300 COCHITI LAKE NEAR COCHITI PUEBLO, NM

LOCATION.--Lat 35°37'01", long 106°18'58", in NW¼SW¼ sec.16, T.16 N., R.6 E., Sandoval County, Hydrologic Unit 13020201, in Pueblo de Cochiti Grant, in control tower at Cochiti Dam, 1.7 mi (2.7 km) northeast of Cochiti Pueblo, and at mile 1,588.1 (2,555.3 km).
DRAINAGE AREA.--14,900 mi^2 (38,600 km^2), approximately, including 2,940 mi^2 (7,610 km^2), in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1973 to current year.
GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Apr. 15, 1975, at site 1.3 mi (2.1 km) upstream at same datum.
REMARKS.--Lake is formed by an earthfill dam on Rio Grande and Santa Fe River. Storage began on Nov. 12, 1973. Capacity 496,600 acre-ft (612 hm^3) between elevations 5,190.0 ft (1,581.91 m) and 5,450.0 ft (1,661.16 m), crest of service spillway. Dead storage 1,480 acre-ft (1.82 hm^3) below elevation 5,255.0 ft (1,601.72 m), invert of outlet structure. Lake was created primarily for flood and sediment control. A 50,000 acre-ft (62 hm^3) permanent pool is authorized for recreational purposes.
COOPERATION.--Records furnished by Corps of Engineers.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 184,400 acre-ft (227 hm^3) June 21, 1979, elevation, 5,387.99 ft (1,642.259 m); no storage prior to Nov. 12, 1973.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 50,040 acre-ft (61.7 hm^3) Feb. 26, elevation, 5,324.56 ft (1,622.926 m); minimum, 44,970 acre-ft (55.4 hm^3) Feb. 17, elevation, 5,320.40 ft (1,621.658 m).

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Corps of Engineers in 1978)

5,320	44,490
5,325	50,600

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46340	46640	46500	46810	46240	46480	48060	46320	46340	46520	45800	46170
2	46450	47160	46510	46240	46230	46540	48670	46750	46340	46920	45970	46260
3	46280	47460	46510	46280	46160	46820	49270	47080	46290	46740	46340	46260
4	46280	47200	46470	46460	46110	46390	49240	47020	46260	46630	46210	46500
5	46280	46630	46560	46690	46170	46340	48190	46700	46380	46560	46200	47000
6	46280	45900	46690	46770	46210	46390	46720	46930	46330	46410	46170	46640
7	46210	46110	46750	46520	46330	46380	46110	46580	46120	46260	46220	46330
8	46180	46330	46940	46440	46230	46320	46140	46300	46210	46720	46440	46230
9	46210	46630	46890	46290	46770	46270	46320	46040	46240	46990	46590	46140
10	46240	46640	46690	46210	47850	46760	46360	46260	46230	46810	46050	46270
11	46220	46410	46200	46170	48660	48030	46360	46390	46120	46700	46480	46340
12	46020	46230	45820	46230	48600	48500	46240	46220	46200	46500	47660	46320
13	46230	46260	46040	46290	47870	47670	46240	46150	46160	46280	47230	46200
14	46390	46260	46400	46350	46830	46410	46360	46200	46400	46480	46420	46220
15	46400	46290	46600	46340	46040	46000	46600	46840	46100	46580	46240	46350
16	46390	46280	46690	46340	45240	46110	47220	46180	46210	46470	46000	46300
17	46330	46240	46700	46320	45580	46180	47370	46300	46360	46640	46230	46300
18	46170	46270	46460	46000	46510	46280	47670	46380	46570	46500	46340	46330
19	46140	46340	46300	46200	46960	46280	47930	46320	46360	46360	46280	46260
20	46180	46470	46300	46360	46640	46280	48160	46380	45780	46230	46230	46230
21	46210	46480	46360	46480	46350	46330	48160	46230	45790	46030	46300	46170
22	46280	46350	46450	46410	46590	46320	47770	46410	45910	46300	46230	46210
23	46320	46160	46450	46320	47400	46270	46960	46400	46160	46220	46600	46210
24	46280	46160	46360	46200	48520	46200	46360	46040	46260	46220	46340	46320
25	46260	46320	46320	46210	49510	46180	46030	46150	46150	46280	46300	46280
26	46240	46300	46280	46230	49800	46160	46150	46340	46090	46450	46340	46220
27	46270	46200	46240	46180	48720	46000	46600	46270	46200	46720	46260	46170
28	46330	46160	46200	46160	47350	45880	46570	46050	46360	46920	46260	46200
29	46240	46330	46150	46200	---	45790	46150	46080	46520	46750	46220	46230
30	46050	46420	46450	46220	---	46420	45990	46260	46390	46450	46320	46240
31	46380	---	47080	46280	---	47220	---	46280	---	45920	46200	---
MAX	46450	47460	47080	46810	49800	48500	49270	47080	46570	46990	47660	47000
MIN	46020	45900	45820	46000	45240	45790	45990	46040	45780	45920	45800	46140
(†)	5321.58	5321.62	5322.17	5321.50	5322.39	5322.28	5321.26	5321.50	5321.59	5321.20	5321.43	5321.47
(‡)	+230	+40	+660	-800	+1070	-130	-1230	+290	+110	-470	+280	+40

CAL YR 1980 MAX 71880 MIN 45550 ‡ +910
WTR YR 1981 MAX 49800 MIN 45240 ‡ +90

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

LOCATION.--Samples collected in Cochiti Lake impounded by Cochiti Dam on the Rio Grande.

PERIOD OF RECORD.--June to September 1981.

REMARKS.--Samples for chemical analyses are collected annually at surface, and/or bottom levels of selected sites. Site locations are as follows: Site A, 500 feet upstream from outlet tower (Riser); Site B, 0.4 mile east of outlet tower (Riser); Site C, approximately 2.5 miles upstream from outlet tower (Riser) and 0.3 mile north of boat ramp on east side of lake; Site D, approximately 5.0 miles upstream from outlet tower (Riser) at mouth of Bland Canyon.

08313408 - COCHITI LAKE AT SITE D (LAT 35 40 41 LONG 106 18 53)
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMPLING DEPTH (FT) (00003)	RESERVOIR DEPTH (FEET) (72025)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)
JUN							
10...	1310	5.00	20	365	14.0	24.5	9.0
10...	1312	15.0	20	--	14.0	21.0	6.9
10...	1313	10.0	20	--	14.0	20.0	8.3

08313412 - COCHITI LAKE AT SITE C (LAT 35 38 57 LONG 106 18 39)

DATE	TIME	SAMPLING DEPTH (FT) (00003)	RESERVOIR DEPTH (FEET) (72025)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)
JUN								
10...	1250	5.00	55	422	8.4	14.0	24.5	7.4
10...	1251	10.0	55	--	--	14.0	21.5	7.0
10...	1252	15.0	55	--	--	14.0	20.5	7.0
10...	1253	20.0	55	--	--	14.0	19.5	6.4
10...	1254	25.0	55	--	--	14.0	19.0	6.3
10...	1255	30.0	55	--	--	14.0	18.5	6.0
10...	1256	35.0	55	--	--	14.0	18.0	5.8
10...	1257	40.0	55	--	--	14.0	17.5	5.3
10...	1258	45.0	55	--	--	14.0	16.5	4.6
10...	1259	50.0	55	--	--	14.0	15.5	2.2
10...	1300	55.0	55	438	8.0	14.0	15.5	1.9

08317298 - COCHITI LAKE AT SITE B (LAT 35 37 06 LONG 106 18 39)

DATE	TIME	SAMPLING DEPTH (FT) (00003)	RESERVOIR DEPTH (FEET) (72025)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)
JUN								
10...	1240	5.00	40	410	8.6	13.5	22.5	9.8
10...	1241	10.0	40	--	--	13.5	21.5	8.8
10...	1242	15.0	40	--	--	13.5	21.0	8.3
10...	1243	20.0	40	--	--	13.5	20.0	7.4
10...	1244	25.0	40	--	--	13.5	18.5	6.9
10...	1245	30.0	40	--	--	13.5	18.5	6.5
10...	1246	35.0	40	--	--	13.5	18.0	6.3
10...	1247	40.0	40	437	8.2	13.5	17.0	5.4

08317300 - COCHITI LAKE AT SITE A (LAT 35 38 11 LONG 106 19 05)

DATE	TIME	SAMPLING DEPTH (FT) (00003)	RESERVOIR DEPTH (FEET) (72025)	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS NONCARBONATE (MG/L AS CACO3) (95902)
JUN										
10...	1222	5.00	70	--	--	--	21.5	9.0	--	--
10...	1223	10.0	70	--	--	--	21.5	8.0	--	--
10...	1224	15.0	70	--	--	--	20.0	7.7	--	--
10...	1225	20.0	70	--	--	--	20.0	7.0	--	--
10...	1226	25.0	70	--	--	--	18.5	6.7	--	--
10...	1227	30.0	70	--	--	--	18.5	6.7	--	--
10...	1228	35.0	70	--	--	--	17.5	6.4	--	--
10...	1229	40.0	70	--	--	--	17.5	5.7	--	--
10...	1230	45.0	70	--	--	--	16.5	4.7	--	--
10...	1231	50.0	70	--	--	--	16.0	4.2	--	--
10...	1232	55.0	70	--	--	--	15.5	3.9	--	--
10...	1233	60.0	70	--	--	--	14.5	2.3	--	--
10...	1234	65.0	70	363	438	7.6	13.5	.9	160	29

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
JUN										
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	49	9.0	26	.9	3.0	130	85	7.6	.4	20

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
JUN										
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	278	.00	.01	.300	1.0	1.3	.210	.100	40	<10

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
JUN										
10...	1234	3	4	40	0	<1	10	0	3	4

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
JUN									
10...	<10	2	0	.1	.0	0	0	10	7

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMP-LING DEPTH (FT) (00003)	RESER-VOIR DEPTH (FEET) (72025)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L) (80020)
JUN											
10...	1234	65.0	70	<1.3	.9	4.2	1.3	4.0	1.3	.09	3.4

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLORDANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DIAZINON, TOTAL (UG/L) (39570)
JUN 10...	1234	.00	.00	.00	.00	.00	.00	.00

DATE	DIELDRIN TOTAL (UG/L) (39380)	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALATHION, TOTAL (UG/L) (39530)	METHOXYCHLOR, TOTAL (UG/L) (39480)
JUN 10...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL PARATHION, TOTAL (UG/L) (39600)	METHYL TRITHION, TOTAL (UG/L) (39790)	PARATHION, TOTAL (UG/L) (39540)	TOXAPHENE, TOTAL (UG/L) (39400)	TOTAL TRITHION (UG/L) (39786)	PERTHANE TOTAL (UG/L) (39034)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
JUN 10...	.00	.00	.00	0	.00	.00	.00	.00

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMPLING DEPTH (FT) (00003)	RESERVOIR DEPTH (FEET) (72025)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
JUN 10...	1234	65.0	70	1	1

08317400 RIO GRANDE BELOW COCHITI DAM, NM

LOCATION.--Lat 35°37'05", long 106°19'24", in SW¼NE¼ sec.17, T.16 N., R.6 E., Sandoval County, Hydrologic Unit 13020201, in Pueblo de Cochiti Grant, on right bank 320 ft (98 m) upstream from bridge on State Highway 22, 700 ft (210 m) downstream from Cochiti Dam, 1.4 mi (2.3 km) northeast of Cochiti Pueblo, and at mile 1,587.6 (2,554.4 km).

DRAINAGE AREA.--14,900 mi^2 (38,590 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 5,226.08 ft (1,592.909 m) National Geodetic Vertical Datum of 1929 (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. Nov. 14, 1973 to Jan. 8, 1976, at site 320 ft (98 m) downstream at datum 1.79 ft (0.546 m) lower.

REMARKS.--Water-discharge records good. Discharges include flow of Santa Fe River which is 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 (2,500 km^2) in Colorado and about 81,000 acres (330 km^2) 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 km^2) below station; see tabulation below for monthly and yearly diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 10,300 ft^3/s (292 m^3/s) July 26, 1971, gage height, 7.90 ft (2.408 m), site and datum then in use, from rating curve extended above 2,600 ft^3/s (74 m^3/s); minimum, 0.51 ft^3/s (0.014 m^3/s) Aug. 3-5, 1977, Aug. 27-28, 1978, result of regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of May 15, 1941, reached a discharge of 23,400 ft^3/s (663 m^3/s) at a nearby site upstream from mouth of Santa Fe River. The flood of May 23, 1920, probably exceeded 23,400 ft^3/s (663 m^3/s), and is likely the highest since 1905.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,960 ft^3/s (55.5 m^3/s) Dec. 31, gage height, 3.72 ft (1.134 m); maximum gage height, 3.73 ft (1.137 m) May 4, 5; minimum discharge, 5.4 ft^3/s (0.15 m^3/s) June 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	330	342	1390	1460	566	979	165	457	648	464	882	134
2	570	587	1400	1270	593	576	171	485	723	821	884	100
3	713	977	1410	1130	591	459	135	1080	825	649	863	155
4	608	1230	1420	1130	558	718	341	1710	811	371	542	177
5	616	1290	1390	1140	520	550	758	1640	790	304	125	407
6	614	1290	1350	1140	524	479	785	1140	800	214	72	851
7	618	1260	1350	969	544	498	401	1090	617	179	37	657
8	522	1140	1300	700	623	490	109	940	408	125	37	512
9	412	1090	1220	656	354	458	52	780	377	391	191	322
10	343	1200	1160	581	192	235	83	446	373	458	411	208
11	329	1290	1220	552	192	48	108	410	339	400	531	198
12	281	1270	1250	525	497	269	117	466	246	476	741	232
13	82	1240	1220	555	930	814	222	363	323	459	1070	263
14	88	1250	1220	599	920	896	389	260	553	310	951	187
15	168	1250	1290	650	910	612	762	263	841	325	545	162
16	192	1280	1350	681	900	415	887	249	687	326	400	302
17	231	1280	1350	705	434	419	831	194	718	331	218	266
18	219	1270	1350	701	203	422	765	286	764	332	235	296
19	165	1290	1350	524	405	481	772	422	987	248	239	229
20	116	1310	1360	459	810	495	769	597	1110	201	210	204
21	125	1340	1350	537	810	478	773	719	1040	203	172	162
22	173	1340	1350	600	617	502	722	789	975	608	227	121
23	172	1340	1360	656	316	511	736	910	980	1000	476	117
24	178	1300	1340	632	196	498	674	808	980	944	939	123
25	178	1300	1310	596	203	468	504	487	980	939	839	173
26	158	1320	1310	608	516	458	357	313	960	940	711	192
27	141	1340	1310	608	1080	459	379	364	920	942	399	124
28	158	1320	1310	613	1170	467	657	407	920	944	199	87
29	212	1310	1350	572	---	474	736	412	878	952	230	88
30	253	1340	1480	541	---	198	555	551	605	947	248	87
31	237	---	1630	538	---	118	---	630	---	911	226	---
TOTAL	9202	36386	41450	22628	16174	14944	14715	19668	22178	16714	13850	7136
MEAN	297	1213	1337	730	578	482	491	634	739	539	447	238
MAX	713	1340	1630	1460	1170	979	887	1710	1110	1000	1070	851
MIN	82	342	1160	459	192	48	52	194	246	125	37	87
AC-FT	18250	72170	82220	44880	32080	29640	29190	39010	43990	33150	27470	14150
(†)	7330	0	0	0	0	6310	5550	7670	7420	7050	7080	7110
(‡)	3580	1.1	0	0	0	3250	3210	4570	4190	4040	4230	3720

CAL YR 1980 TOTAL 671451 MEAN 1835 MAX 6840 MIN 49 AC-FT 1332000 † 59720 ‡ 33320
WTR YR 1981 TOTAL 235045 MEAN 644 MAX 1710 MIN 37 AC-FT 466200 † 55520 ‡ 30790

† Diversion, in acre-feet, by Cochiti eastside main canal at head.
‡ Diversion, in acre-feet, by Sili main canal at head.

08317400 RIO GRANDE BELOW COCHITI DAM, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1972 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to current year.
WATER TEMPERATURES: July 1971 to current year.
SUSPENDED SEDIMENT DISCHARGE: July 1974 to current year.

INSTRUMENTATION.--Continuous water-temperature recorder and automatic pumping sediment sampler.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 698 micromhos July 19, 1978; minimum daily, 130 micromhos July 30, 1978.
WATER TEMPERATURES: Maximum, 35.5°C Aug. 4, 1977; minimum, 0.0°C on several days during winter period.
SEDIMENT CONCENTRATIONS: Maximum daily, 343 mg/L June 16, 1975; minimum daily, 1 mg/L on Jan. 7-8, Feb. 10, Mar. 28, 1977.
SEDIMENT LOADS: Maximum daily, 3,540 tons (3,210 tonnes) June 16, 1975; minimum daily, 0.02 tons (0.02 tonnes) Aug. 4, 1977.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 637 micromhos May 6; minimum daily, 347 micromhos Dec. 3.
WATER TEMPERATURES: Maximum, 25.5°C on July 22-23; minimum, 4.5°C on several days in January and February.
SEDIMENT CONCENTRATIONS: Maximum daily, 61 mg/L Dec. 28; minimum daily, 2 mg/L Jan. 21, 27, Aug. 12.
SEDIMENT LOADS: Maximum daily, 216 tons (196 tonnes) Dec. 28; minimum daily, 0.56 tons (0.51 tonnes) Apr. 9.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	402	401	442	---	---	---	537	492	501	---
2	---	---	397	392	442	---	---	---	539	482	499	---
3	---	---	347	396	439	383	---	---	550	462	494	---
4	---	407	423	397	438	---	---	432	546	455	489	---
5	---	470	431	399	437	---	---	---	540	456	455	---
6	---	484	454	398	434	---	---	637	547	456	447	---
7	350	475	435	396	432	---	---	604	543	456	---	---
8	437	469	420	398	---	---	405	602	546	455	---	---
9	440	467	418	422	---	---	---	602	442	455	---	433
10	443	460	421	416	423	---	---	588	455	454	---	539
11	443	457	412	416	---	398	---	569	511	461	448	541
12	440	447	410	415	---	445	---	568	490	459	630	555
13	406	448	407	412	---	444	---	591	484	450	485	556
14	406	447	413	410	---	440	---	575	465	446	473	538
15	402	438	410	409	---	441	---	575	464	448	463	530
16	400	435	400	462	---	437	---	578	634	447	453	529
17	---	438	398	462	---	433	---	573	618	444	437	---
18	---	440	402	462	---	438	---	561	622	420	---	---
19	---	432	406	469	---	422	---	552	591	420	---	---
20	---	430	402	467	---	431	---	548	561	---	441	---
21	---	423	399	459	---	424	---	548	564	---	504	---
22	---	423	398	456	---	427	---	544	567	---	502	---
23	---	426	399	457	---	431	---	539	552	419	494	---
24	---	418	396	451	---	433	---	556	511	517	499	---
25	---	413	395	450	---	402	---	534	---	510	492	---
26	---	413	396	446	---	419	---	540	---	525	476	---
27	---	415	408	448	---	---	---	543	---	513	471	---
28	---	416	408	445	---	---	---	500	---	507	478	---
29	---	410	401	442	---	---	---	525	---	514	480	---
30	---	405	403	440	---	---	---	545	495	516	474	---
31	---	---	397	446	---	---	---	541	---	516	477	---
MEAN	417	437	407	430	436	426	405	558	535	470	482	528

WTR YR 1981 MEAN 466 MAX 637 MIN 347
NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

08317400 RIO GRANDE BELOW COCHITI DAM, NM -- Continued

WATER-QUALITY RECORDS

WATER TEMPERATURE (DEG.°C), RECORDER MAXIMUM, AND MEAN, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.0	20.0	20.5	13.5	13.0	13.0	7.5	7.0	7.0	5.5	5.5	5.5
2	20.5	20.0	20.0	13.5	13.0	13.0	7.0	6.5	7.0	6.0	5.5	5.5
3	20.5	20.0	20.0	13.5	13.0	13.5	7.0	6.5	6.5	6.0	5.5	5.5
4	20.0	20.0	20.0	13.5	13.0	13.0	7.0	6.5	6.5	6.0	5.5	5.5
5	20.0	19.5	20.0	13.0	13.0	13.0	7.0	6.5	6.5	6.0	5.5	6.0
6	20.0	19.5	19.5	13.0	13.0	13.0	7.0	6.5	7.0	5.5	5.5	5.5
7	20.0	19.5	19.5	13.0	13.0	13.0	7.0	6.5	6.5	---	---	---
8	19.5	19.0	19.5	13.0	12.5	13.0	7.0	7.0	7.0	6.0	6.0	6.0
9	19.5	18.5	19.0	13.0	12.0	12.5	7.0	6.5	7.0	6.0	5.5	5.5
10	19.5	18.5	19.0	13.0	12.0	12.5	7.0	6.5	6.5	5.5	5.5	5.5
11	19.5	18.5	19.0	12.5	12.5	12.5	6.5	6.5	6.5	5.5	5.5	5.5
12	19.5	18.5	19.0	12.5	12.0	12.0	6.5	6.5	6.5	6.0	5.5	5.5
13	20.5	16.0	18.5	12.5	12.0	12.0	6.5	6.5	6.5	6.0	5.0	5.5
14	19.0	14.5	17.5	12.0	11.5	12.0	6.5	6.5	6.5	5.5	5.0	5.5
15	18.5	17.5	18.0	11.5	11.5	11.5	6.5	6.0	6.5	5.5	5.5	5.5
16	18.0	17.5	18.0	11.5	11.0	11.5	6.5	6.0	6.0	5.5	5.5	5.5
17	18.0	17.0	17.5	11.0	11.0	11.0	6.0	6.0	6.0	5.5	5.0	5.5
18	17.5	16.5	17.0	11.0	10.5	10.5	6.5	6.0	6.0	5.5	5.0	5.5
19	17.5	16.0	16.5	10.5	10.0	10.5	6.0	5.5	6.0	5.5	5.5	5.5
20	17.5	15.5	16.5	10.0	9.5	10.0	6.0	5.5	6.0	5.5	5.0	5.5
21	16.5	15.5	16.0	10.0	9.5	9.5	6.0	5.5	5.5	5.5	5.0	5.0
22	16.0	15.5	15.5	9.5	9.0	9.5	6.0	5.5	6.0	5.5	5.0	5.0
23	16.0	15.0	15.5	9.5	8.5	9.0	6.0	6.0	6.0	5.5	5.0	5.0
24	15.5	14.5	15.0	8.5	8.0	8.5	6.0	5.5	5.5	5.5	5.0	5.0
25	15.5	14.5	15.0	8.5	8.0	8.0	6.0	5.5	5.5	5.0	4.5	5.0
26	15.0	14.5	14.5	8.0	8.0	8.0	5.5	5.5	5.5	5.5	5.0	5.0
27	14.5	14.0	14.0	8.0	7.5	8.0	5.5	5.5	5.5	5.5	5.0	5.0
28	14.0	13.5	14.0	8.0	7.5	7.5	5.5	5.0	5.5	5.5	5.0	5.0
29	14.5	13.5	14.0	7.5	7.5	7.5	5.5	5.0	5.0	5.5	4.5	5.0
30	14.0	13.5	13.5	7.5	7.0	7.5	5.5	5.0	5.5	5.0	4.5	5.0
31	14.0	13.0	13.5	---	---	---	5.5	5.5	5.5	5.0	5.0	5.0
MONTH	21.0	13.0	17.5	13.5	7.0	11.0	7.5	5.0	6.0	6.0	4.5	5.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.0	4.5	5.0	7.0	6.5	6.5	11.5	9.5	10.0	15.0	13.5	14.0
2	5.0	4.5	5.0	7.5	6.5	7.0	10.5	9.5	10.0	15.0	14.0	14.5
3	5.0	4.5	5.0	8.0	7.0	7.5	10.5	9.5	10.0	18.0	14.5	16.5
4	4.5	4.5	4.5	7.5	7.0	7.5	11.0	9.5	10.0	18.0	17.5	18.0
5	5.0	4.5	4.5	8.5	7.5	7.5	10.5	10.0	10.0	18.0	17.0	17.5
6	5.0	4.5	4.5	8.0	7.5	7.5	11.0	10.0	10.5	17.5	17.0	17.0
7	5.0	4.5	5.0	8.5	7.5	8.0	11.0	10.0	10.5	17.5	17.0	17.5
8	5.0	4.5	5.0	8.5	8.0	8.0	11.0	10.0	10.5	17.5	17.0	17.5
9	5.5	5.0	5.0	8.5	7.5	8.0	12.0	10.0	11.0	18.0	16.0	17.0
10	5.5	5.0	5.0	8.5	7.5	8.0	11.5	10.0	11.0	17.0	15.0	16.0
11	5.0	4.5	5.0	8.5	7.5	8.0	11.5	10.0	11.0	17.0	15.0	16.0
12	5.0	4.5	5.0	9.0	8.0	8.5	11.5	10.0	10.5	17.0	15.5	16.0
13	5.0	4.5	5.0	9.5	8.5	8.5	11.5	10.5	11.0	17.0	15.5	16.0
14	5.5	5.0	5.0	9.0	8.5	8.5	11.0	10.5	11.0	16.5	15.5	16.0
15	5.5	5.0	5.0	8.5	8.5	8.5	12.5	11.0	12.0	17.0	15.0	16.0
16	5.5	5.0	5.5	9.0	8.5	8.5	13.0	11.5	12.5	17.0	15.5	16.0
17	6.0	5.0	5.5	9.0	8.5	8.5	13.0	12.0	12.5	17.0	15.5	16.0
18	6.5	5.5	6.0	9.0	8.5	8.5	13.0	12.0	12.5	17.0	15.5	16.5
19	6.5	6.0	6.0	9.0	8.5	9.0	13.0	12.0	12.5	17.0	16.0	16.5
20	7.0	5.5	6.5	9.5	9.0	9.0	13.5	12.0	12.5	17.0	16.5	16.5
21	6.5	6.0	6.5	9.5	8.5	9.0	13.5	12.0	13.0	17.5	16.5	17.0
22	7.5	6.0	6.5	9.5	8.5	9.0	13.5	12.0	13.0	18.0	17.0	17.5
23	7.0	6.0	6.5	9.5	9.0	9.5	14.0	13.0	13.5	18.0	17.5	17.5
24	7.0	6.0	6.5	10.0	9.0	9.5	14.0	12.5	13.5	18.0	17.5	17.5
25	7.0	6.0	6.5	10.0	9.5	9.5	13.5	12.5	13.0	17.5	16.5	17.0
26	7.0	6.0	6.5	10.0	9.0	9.5	13.5	12.0	12.5	17.5	16.5	17.0
27	7.0	6.5	6.5	9.5	9.0	9.5	14.0	12.0	13.0	18.0	16.5	17.0
28	7.5	6.5	7.0	9.5	9.5	9.5	15.0	13.0	14.0	18.0	17.0	17.5
29	---	---	---	10.0	9.5	9.5	15.0	14.0	14.5	18.0	17.0	17.5
30	---	---	---	11.0	9.5	10.0	15.0	13.5	14.0	18.0	17.0	17.5
31	---	---	---	11.0	9.5	10.0	---	---	---	18.5	17.5	18.0
MONTH	7.5	4.5	5.5	11.0	6.5	8.5	15.0	9.5	12.0	18.5	13.5	16.5

RIO GRANDE BASIN
08317400 RIO GRANDE BELOW COCHITI DAM, NM -- Continued
WATER-QUALITY RECORDS

WATER TEMPERATURE (DEG.°C), RECORDER MAXIMUM, AND MEAN, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.5	18.0	18.0	21.5	20.5	21.0	24.5	24.0	24.0	23.5	22.0	22.5
2	19.0	18.0	18.5	22.5	21.0	22.0	24.5	23.5	24.0	24.0	22.0	22.5
3	19.5	18.0	18.5	22.0	20.5	21.5	24.5	23.5	24.0	23.5	22.0	22.5
4	19.0	18.5	18.5	21.5	20.0	21.0	24.0	22.5	23.5	23.5	22.5	22.5
5	19.0	18.0	18.5	21.5	20.0	21.0	24.0	22.5	23.0	23.5	22.5	23.0
6	19.5	18.5	19.0	22.0	21.0	21.0	25.0	22.0	23.0	23.5	22.5	23.0
7	19.0	18.0	18.5	22.0	20.0	21.0	24.5	22.0	23.0	23.0	22.5	23.0
8	19.0	18.0	18.0	22.0	20.0	21.0	25.0	22.0	22.5	23.0	22.5	22.5
9	18.5	18.0	18.0	23.0	20.0	21.5	24.0	21.5	23.0	22.5	20.5	21.5
10	18.5	17.5	18.0	22.5	22.0	22.0	24.0	23.5	24.0	21.5	20.5	20.5
11	19.0	17.5	18.0	23.0	22.0	22.0	24.0	23.5	24.0	21.5	20.5	20.5
12	19.5	17.5	18.0	23.0	21.5	22.5	24.0	23.5	23.5	21.5	20.5	21.0
13	19.0	17.5	18.0	23.5	22.0	22.5	24.0	23.5	23.5	21.0	20.5	21.0
14	19.5	18.0	19.0	23.0	21.5	22.5	24.0	23.0	23.5	21.5	20.0	20.5
15	21.0	19.0	19.5	23.0	21.0	22.5	24.0	23.0	23.5	21.0	20.0	20.5
16	20.0	19.0	19.5	23.5	22.0	22.5	23.5	22.5	23.0	21.0	20.0	20.5
17	20.0	19.0	19.5	23.5	22.5	23.0	23.5	22.0	23.0	21.0	20.0	20.5
18	20.5	19.5	20.0	24.0	22.5	23.0	23.5	22.0	23.0	20.5	20.0	20.0
19	20.5	19.5	20.5	23.5	22.0	23.0	23.5	22.5	23.0	20.5	19.5	20.0
20	21.0	20.0	20.5	23.5	22.0	23.0	23.5	22.0	22.5	20.5	19.5	20.0
21	21.0	20.5	20.5	24.0	22.5	23.0	24.0	22.5	23.0	20.5	19.5	20.0
22	21.0	20.5	21.0	25.5	22.5	24.0	23.5	22.5	23.0	20.5	19.5	20.0
23	22.0	21.0	21.5	25.5	24.5	25.0	23.5	22.0	23.0	20.0	19.5	19.5
24	21.5	21.0	21.5	25.0	24.5	24.5	24.5	23.5	23.5	20.5	19.5	19.5
25	22.0	21.0	21.5	25.0	24.0	24.5	24.0	23.5	23.5	20.5	19.5	19.5
26	22.0	21.5	21.5	25.0	23.5	24.5	24.0	23.0	23.5	20.0	19.5	19.5
27	22.0	21.5	21.5	25.0	23.0	24.5	24.0	22.5	23.0	20.5	19.0	19.5
28	22.5	21.5	22.0	24.5	24.0	24.5	23.5	22.5	23.0	20.5	19.0	19.5
29	22.5	21.5	22.0	25.0	24.0	24.0	23.5	22.0	23.0	20.5	19.0	19.5
30	22.5	20.5	21.5	25.0	24.0	24.0	23.5	22.5	23.0	20.0	19.0	19.0
31	---	---	---	24.0	23.5	24.0	23.0	22.5	23.0	---	---	---
MONTH	22.5	17.5	19.5	25.5	20.0	23.0	25.0	21.5	23.5	24.0	19.0	21.0
YEAR	25.5	4.5	14.0									

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7	6.2	8	7.4	11	41	44	173	14	21	7	19
2	8	12	9	14	15	57	24	82	5	8.0	5	7.8
3	8	15	10	26	16	61	47	143	5	8.0	5	6.2
4	7	11	7	23	13	50	28	85	6	9.0	8	16
5	7	12	7	24	12	45	20	62	7	9.8	7	10
6	7	12	8	28	7	26	25	77	6	8.5	9	12
7	10	17	11	37	8	29	6	16	5	7.3	8	11
8	16	23	8	25	8	28	6	11	4	6.7	6	7.9
9	17	19	5	15	8	26	5	8.9	4	3.8	6	7.4
10	14	13	6	19	11	34	6	9.4	3	1.6	6	3.8
11	12	11	11	38	15	49	4	6.0	3	1.6	9	1.2
12	15	11	7	24	11	37	4	5.7	7	9.4	4	2.9
13	8	1.8	8	27	10	33	4	6.0	6	15	5	11
14	11	2.6	8	27	11	36	5	8.1	6	15	3	7.3
15	10	4.5	20	67	8	28	4	7.0	6	15	3	5.0
16	6	3.1	12	41	9	33	4	7.4	6	15	5	5.6
17	8	5.0	12	41	9	33	4	7.6	5	5.9	6	6.8
18	8	4.7	11	38	9	33	11	21	4	2.2	6	6.8
19	7	3.1	12	42	9	33	7	9.9	6	6.6	5	6.5
20	6	1.9	13	46	9	33	3	3.7	7	15	8	11
21	5	1.7	12	43	8	29	2	2.9	7	15	7	9.0
22	4	1.9	12	43	10	36	5	8.1	6	10	10	14
23	4	1.9	8	29	10	37	4	7.1	5	4.3	11	15
24	5	2.4	9	32	9	33	7	12	4	2.1	13	17
25	4	1.9	13	46	9	32	10	16	4	2.2	12	15
26	4	1.7	12	43	10	35	6	9.8	6	8.4	5	6.2
27	3	1.1	16	58	45	159	2	3.3	8	23	5	6.2
28	6	2.6	20	71	61	216	6	9.9	7	22	5	6.3
29	7	4.0	18	64	46	168	5	7.7	---	---	5	6.4
30	8	5.5	12	43	23	92	7	10	---	---	4	2.1
31	7	4.5	---	---	23	101	18	26	---	---	6	1.9
TOTAL	---	218.1	---	1081.4	---	1683	---	862.5	---	271.4	---	264.3

08317400 RIO GRANDE BELOW COCHITI DAM, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6	2.7	4	4.9	15	26	18	23	12	29	10	3.6
2	5	2.3	4	5.2	24	47	13	29	6	14	8	2.2
3	5	1.8	5	15	35	78	17	30	10	23	10	4.2
4	7	6.4	5	23	26	57	12	12	14	20	12	5.7
5	8	16	16	71	29	62	18	15	9	3.0	20	22
6	8	17	16	49	33	71	16	9.2	7	1.4	25	57
7	7	7.6	12	35	44	73	14	6.8	6	.60	23	41
8	6	1.8	12	30	37	41	39	13	6	.60	23	32
9	4	.56	8	17	39	40	18	19	8	4.1	21	18
10	6	1.3	11	13	11	11	17	21	10	11	20	11
11	4	1.2	13	14	11	10	20	22	10	14	14	7.5
12	4	1.3	16	20	11	7.3	23	30	2	4.0	15	9.4
13	5	3.0	14	14	10	8.7	19	24	9	26	16	11
14	6	6.3	13	9.1	11	16	19	16	14	36	15	7.6
15	7	14	15	11	18	41	19	17	21	31	22	9.6
16	6	14	15	10	12	22	19	17	16	17	15	12
17	6	13	17	8.9	17	33	18	16	14	8.2	15	11
18	5	10	14	11	14	29	16	14	14	8.9	16	13
19	5	10	15	17	11	29	24	16	14	9.0	15	9.3
20	5	10	15	24	16	48	20	11	14	7.9	15	8.3
21	6	13	18	35	15	42	18	9.9	14	6.5	12	5.2
22	4	7.8	14	30	14	37	16	26	12	7.4	11	3.6
23	4	7.9	11	27	16	42	14	38	15	19	10	3.2
24	4	7.3	13	28	29	77	16	41	9	23	10	3.3
25	3	4.1	12	16	25	66	18	46	8	18	11	5.1
26	3	2.9	15	13	25	65	43	109	13	25	10	5.2
27	5	5.1	37	36	24	60	21	53	8	8.6	9	3.0
28	6	11	26	29	24	60	16	41	12	6.4	6	1.4
29	6	12	40	44	23	55	18	46	30	19	6	1.4
30	5	7.5	46	68	22	36	19	49	22	15	5	1.2
31	---	---	39	66	---	---	10	25	10	6.1	---	---
TOTAL	---	218.86	---	794.1	---	1290.0	---	844.9	---	422.70	---	328.0

TOTAL LOAD FOR YEAR: 8279.26 TONS.

08317900 GALISTEO RESERVOIR NEAR CERRILLOS, NM

LOCATION.--Lat 35°27'44", long 106°12'30", in NW¼ sec.9, T.14 N., R.7 E., Santa Fe County, Hydrologic Unit 13020201, 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 mi^2 (1,544 km^2).
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 National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).
REMARKS.--Reservoir is formed by an earthfill dam, completed Oct. 11, 1970. Capacity 88,990 acre-ft (110 hm^3) 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.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,510 acre-ft (3.09 hm^3) July 26, 1971, elevation, 5,517.00 ft (1,681.582 m); no storage most of time.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 882 acre-ft (1.09 hm^3) July 26, elevation, 5,512.55 ft (1,680.225 m); no storage most of time.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Corps of Engineers in 1972)

5,500	0	5,504	41	5,510	468
5,501	2	5,505	69	5,512	781
5,502	9	5,506	109	5,514	1,170
5,503	21	5,508	244		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	206	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	153	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1	13
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	50	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	554	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	200	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	98	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
MAX	.00	.00	.00	.00	.00	.00	.00	.00	153	554	200	13
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(†)	---	---	---	---	---	---	---	---	5505.75	---	---	---
(‡)	0	0	0	0	0	0	0	0	+98	-98	0	0

CAL YR 1980 MAX .00 MIN .00 ‡ 0
WTR YR 1981 MAX 554 MIN .00 ‡ 0

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

08317950 GALISTEO CREEK BELOW GALISTEO DAM, NM

LOCATION.--Lat 35°27'56", long 106°12'57", in SE¼SE¼ sec.5, T.14 N., R.7 E., Santa Fe County, Hydrologic Unit 13020201, 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 mi^2 (1,546 km^2).
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.
REMARKS.--Records poor. Flow regulated by Galisteo Reservoir 0.6 mi (1.0 km) upstream. Diversions for irrigation of about 50 acres (20 hm^2) above station.
AVERAGE DISCHARGE.--11 years, 6.51 ft^3/s (0.184 m^3/s), 4,720 acre-ft/yr (5.82 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,000 ft^3/s (56.6 m^3/s) July 27, 1971, gage height, 7.00 ft (2.134 m); maximum gage height, 7.33 ft (2.234 m) July 20, 1971; no flow for many days each year.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,590 ft^3/s (45.0 m^3/s) July 26, gage height, 7.11 ft (2.167 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	50	.00	275	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	80	.00	150	3.5	.00
3	.00	.00	.00	.00	.00	.00	.00	2.0	136	25	.00	25
4	.00	.00	.00	.00	.00	.00	.00	.25	85	10	.35	45
5	.00	.00	.00	.00	.00	.00	.00	.25	1.5	2.5	.35	25
6	.00	.00	.00	.00	.00	.00	.00	2.5	.15	.05	5.5	60
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.5	15
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	4.5
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.11
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	40	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.5	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.3	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.0	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	9.0	11
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	30	8.5
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	55	30
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	10	.05
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.5	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	130	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	185	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.0	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	370	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	435	100	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	30	430	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	4.0	10	.00
30	.00	.00	.00	.00	---	.00	.00	.00	550	.70	.80	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	135.00	772.65	1302.25	1036.62	224.16
MEAN	.000	.000	.000	.000	.000	.000	.000	4.35	25.8	42.0	33.4	7.47
MAX	.00	.00	.00	.00	.00	.00	.00	80	550	435	430	60
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	268	1530	2580	2060	445

CAL YR 1980 TOTAL 467.80 MEAN 1.28 MAX 69 MIN .00 AC-FT 928
WTR YR 1981 TOTAL 3470.68 MEAN 9.51 MAX 550 MIN .00 AC-FT 6880

08319000 RIO GRANDE AT SAN FELIPE, NM
(Surveillance network station)

LOCATION.--Lat 35°26'39", long 106°26'23", in SW¼NW¼ sec.17, T.14 N., R.5 E., Sandoval County, Hydrologic Unit 13020201, 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 mi^2 (41,670 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1925 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 1312: 1926-30, WSP 1392: 1937(M), WSP 1512: 1931-32, 1933(M), 1934-36, 1938(M).

GAGE.--Water-stage recorder. Datum of gage is 5,115.73 ft (1,559.275 m) National Geodetic Vertical Datum of 1929. 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.

REMARKS.--Water-discharge records good except those for April and August, which are fair. Flow completely regulated since November 1973 by Cochiti Dam (station 08317300) 17 mi (27 km) upstream. Prior to November 1973 some regulation of flow by El Vado Reservoir (station 08285000) and Abiquiu Reservoir (station 08286900). Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510). Diversions for irrigation of about 705,000 acres (2,900 km^2) above station, some of which is irrigated below by Cochiti eastside main canal and San Felipe eastside acequia, which bypass station.

AVERAGE DISCHARGE.--48 years (water years 1926-73), 1,374 ft^3/s (38.91 m^3/s), 995,500 acre-ft/yr (1.23 km^3/yr) prior to closure of Cochiti Dam.
8 years (water years 1974-81), 1,246 ft^3/s (35.29 m^3/s), 902,700 acre-ft/yr (1.11 km^3/yr) since closure of Cochiti Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,300 ft^3/s (773 m^3/s) June 26, 1937, gage height, 11.13 ft (3.392 m) site and datum then in use, from rating curve extended above 15,000 ft^3/s (425 m^3/s); minimum, 32 ft^3/s (0.906 m^3/s) July 7, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Other major floods occurred in 1874, 1884, and 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,850 ft^3/s (251 m^3/s) Aug. 20, gage height, 7.31 ft (2.228 m); minimum daily, 160 ft^3/s (4.53 m^3/s) Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	392	406	1510	1480	561	1080	194	448	741	813	980	220
2	553	534	1540	1410	580	793	198	564	799	1000	980	205
3	780	904	1540	1230	551	459	200	868	873	770	960	201
4	719	1260	1540	1230	583	776	190	1540	1070	438	950	292
5	713	1310	1540	1220	520	665	861	1640	984	357	300	420
6	715	1330	1480	1220	519	497	903	1190	872	288	207	915
7	720	1340	1490	1170	532	604	695	1160	782	290	170	1070
8	680	1270	1460	794	589	579	286	1030	495	236	160	768
9	544	1220	1400	758	523	561	200	859	429	318	184	574
10	498	1270	1330	646	251	475	182	635	410	530	423	373
11	398	1380	1350	625	238	217	218	401	402	443	611	343
12	460	1380	1390	573	321	217	225	523	317	471	735	347
13	312	1340	1370	567	922	793	259	419	297	554	1020	414
14	224	1360	1360	589	953	1050	301	349	461	397	1150	368
15	287	1370	1390	628	957	909	900	293	800	336	617	255
16	320	1380	1460	671	955	561	950	347	728	407	604	311
17	332	1410	1460	683	701	555	927	278	638	325	398	398
18	361	1390	1450	694	272	537	836	294	784	369	361	379
19	317	1410	1450	577	280	573	845	458	891	324	340	378
20	298	1420	1450	436	811	630	849	580	1090	310	514	286
21	248	1450	1450	503	827	592	821	805	1030	433	1480	294
22	303	1470	1450	552	733	585	779	852	966	600	690	223
23	305	1470	1450	631	406	598	758	1010	966	1170	570	222
24	308	1450	1430	632	249	581	739	993	984	1100	1160	220
25	315	1440	1390	592	236	554	532	687	969	1000	1260	247
26	309	1450	1390	595	321	536	437	415	893	1000	1100	278
27	290	1480	1390	593	993	541	320	408	880	1000	708	253
28	295	1470	1390	594	1170	555	543	504	900	1000	260	182
29	324	1460	1400	577	---	555	689	508	908	1000	270	167
30	394	1480	1480	542	---	428	610	572	979	1020	280	164
31	365	---	1630	545	---	190	---	730	---	980	250	---
TOTAL	13079	39304	44810	23557	16554	18246	16447	21360	23288	19269	19692	10767
MEAN	422	1310	1445	760	591	589	548	689	776	622	635	359
MAX	780	1480	1630	1480	1170	1080	950	1640	1090	1170	1480	1070
MIN	224	406	1330	436	236	190	182	278	297	236	160	164
AC-FT	25940	77960	88880	46730	32830	36190	32620	42370	46190	38220	39060	21360
(†)	4480	0	0	0	0	2960	2600	3790	3550	3560	3990	10220

CAL YR 1980 TOTAL 708704 MEAN 1936 MAX 7030 MIN 190 AC-FT 1406000
WTR YR 1981 TOTAL 266373 MEAN 730 MAX 1640 MIN 160 AC-FT 528400

(†) MONTHLY DIVERSION, IN ACRE-FT, OF COCHITI EASTSIDE CANAL; RECORD OF THIS FLOW FURNISHED BY MIDDLE RIO GRANDE CONSERVANCY DISTRICT.

08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1975 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
OCT											
07...	0900	650	370	8.1	16.5	15.0	8.3	--	--	--	--
NOV											
04...	1115	1280	360	8.2	20.0	11.5	9.8	8	140	20	--
DEC											
03...	0923	1520	368	8.2	10.0	4.0	11.4	--	--	--	--
19...	0900	1490	320	8.3	3.0	4.0	11.8	--	--	--	--
JAN											
06...	1410	1240	345	8.8	12.5	5.0	11.2	19	140	31	--
FEB											
18...	0945	279	380	8.4	13.5	6.0	9.8	--	--	--	--
MAR											
16...	1315	561	350	8.6	18.0	9.0	11.4	20	130	--	--
APR											
13...	1445	235	395	8.6	23.0	18.0	8.0	--	--	--	--
MAY											
19...	1045	473	460	8.1	15.5	14.5	8.6	19	170	--	56
JUN											
16...	1015	787	430	8.1	20.5	17.0	8.5	--	--	--	--
JUL											
14...	0945	391	365	8.2	24.5	21.0	7.7	30	150	--	47
AUG											
27...	1015	732	380	8.1	23.5	20.5	7.2	--	--	--	--
SEP											
15...	1145	255	459	8.2	25.5	20.0	7.7	27	160	--	29

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
OCT											
07...	--	--	--	--	--	--	--	--	--	--	--
NOV											
04...	44	7.3	22	.8	3.2	120	62	6.1	.4	19	237
DEC											
03...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
JAN											
06...	43	8.1	20	.7	2.5	110	75	5.2	.3	18	238
FEB											
18...	--	--	--	--	--	--	--	--	--	--	--
MAR											
16...	41	7.4	24	.9	2.7	110	60	7.4	.4	22	231
APR											
13...	--	--	--	--	--	--	--	--	--	--	--
MAY											
19...	50	9.9	27	.9	3.1	110	92	7.9	.3	17	274
JUN											
16...	--	--	--	--	--	--	--	--	--	--	--
JUL											
14...	45	8.5	23	.8	3.0	100	81	5.4	.3	17	244
AUG											
27...	--	--	--	--	--	--	--	--	--	--	--
SEP											
15...	50	8.4	26	.9	3.5	130	76	6.4	.3	20	269

08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT											
07...	--	--	--	--	--	--	--	--	--	--	--
NOV											
04...	--	.22	.10	.120	.62	.96	.030	.010	20	<10	3.8
DEC											
03...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
JAN											
06...	--	.00	.00	.040	.59	.63	.050	.010	30	10	5.0
FEB											
18...	--	--	--	--	--	--	--	--	--	--	--
MAR											
16...	--	.00	.00	.070	.73	.80	.070	.020	40	<10	4.5
APR											
13...	--	--	--	--	--	--	--	--	--	--	--
MAY											
19...	.000	.00	.04	.040	.46	.50	.900	.160	60	20	5.4
JUN											
16...	--	--	--	--	--	--	--	--	--	--	--
JUL											
14...	--	.01	.03	.110	.49	.61	.020	.020	30	10	3.3
AUG											
27...	--	--	--	--	--	--	--	--	--	--	--
SEP											
15...	--	.02	.01	.030	.52	.57	.050	.020	30	35	4.1

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)
NOV										
04...	1115	4	3	20	0	<1	0	0	4	2
MAY										
19...	1045	2	2	60	0	<1	10	0	3	1

DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV									
04...	<10	4	1	.2	.0	0	0	30	<3
MAY									
19...	20	6	0	.0	.0	0	0	0	<3

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITROGEN,TOT IN BOTTOM MATERIAL (MG/KG AS N) (00603)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)
MAY								
19...	1045	.0	.0	117	360	0	4	1

DATE	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
MAY							
19...	0	3	460	10	180	.01	2

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
MAY									
19...	1045	<8.9	.9	7.0	1.2	6.7	1.2	.07	2.6

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-AZINON, TOTAL (UG/L) (39570)	DI-ELDRIN TOTAL (UG/L) (39380)
MAY									
19...	1045	--	--	--	--	--	--	--	--
SEP									
15...	1145	.00	.00	.00	.00	.00	.00	.00	.00

DATE	ENDO-SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METHYL PARA-THION, TOTAL (UG/L) (39600)
MAY									
19...	--	--	--	--	--	--	--	--	--
SEP									
15...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL TRI-THION, TOTAL (UG/L) (39790)	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PER-THANE TOTAL (UG/L) (39034)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
MAY									
19...	--	--	--	--	.00	.00	--	--	--
SEP									
15...	.00	.00	0	.00	--	--	.00	.00	.00

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
07...	0900	60	100
NOV			
04...	1115	52	60
DEC			
03...	0923	18	15
19...	0900	7	15
JAN			
06...	1410	1	7
FEB			
18...	0945	15	12
MAR			
16...	1315	2	11
APR			
13...	1445	14	56
MAY			
19...	1045	25	110
JUN			
16...	1015	29	57
JUL			
14...	0945	230	200
AUG			
27...	1015	200	290
SEP			
15...	1145	120	61

08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
07...	0900	650	15.0	36	63	93
NOV						
04...	1115	1280	11.5	82	283	76
JAN						
06...	1410	1240	5.0	11	37	97
MAR						
16...	1315	561	9.0	11	17	85
MAY						
19...	1045	473	14.5	44	56	91
JUL						
14...	1115	398	22.0	51	55	88
SEP						
15...	1110	262	20.0	84	59	66

08321500 JEMEZ RIVER BELOW EAST FORK, NEAR JEMEZ SPRINGS, NM

LOCATION.--Lat 35°49'39", long 106°38'52", in NW¼ sec. 5, T.18 N., R.3 E., Sandoval County, Hydrologic Unit 13020202, 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 mi^2 (448 km^2).

PERIOD OF RECORD.--July 1949 to October 1950 (gaged separately above East Fork), May 1951 to September 1957 (irrigation seasons only), March 1958 to September 1976, July to September 1981.

REVISED RECORDS.--WSP 1512: 1951-54(M), 1955, 1956(M). WSP 1712: Drainage area.

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.

REMARKS.--Records good. No diversion above station. Several observations of water temperature were made during the period.

AVERAGE DISCHARGE.--18 years (water years 1950, 1959-76), 27.9 ft^3/s (0.790 m^3/s), 20,210 acre-ft/yr (24.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 2,500 ft^3/s (71.4 m^3/s) Apr. 21, 1958, gage height, 7.35 ft (2.240 m), from rating curve extended above 1,100 ft^3/s (31 m^3/s) on basis of slope-area and contracted-opening measurements of peak flow; minimum, 0.91 ft^3/s (0.026 m^3s) Jan. 24, 1969, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period July to September, 36 ft^3/s (1.02 m^3/s) at 1745 hours Sept. 17, gage height, 1.49 ft (0.454 m), no peak above base of 100 ft^3/s (2.8 m^3/s); minimum, 12 ft^3/s (0.34 m^3/s) July 21-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										---	17	14
2										---	17	14
3										---	15	14
4										---	14	15
5										---	15	15
6										---	15	17
7										---	15	17
8										---	18	19
9										---	19	21
10										---	20	22
11										---	19	22
12										---	18	21
13										---	16	21
14										---	15	21
15										16	14	21
16										18	15	21
17										20	15	31
18										17	18	25
19										15	21	21
20										14	17	17
21										12	16	16
22										12	19	15
23										12	17	16
24										13	15	21
25										13	14	24
26										13	14	20
27										14	15	16
28										13	18	15
29										14	17	15
30										16	14	15
31										16	14	---
TOTAL										---	506	562
MEAN										---	16.3	18.7
MAX										---	21	31
MIN										---	14	14
AC-FT										---	1000	1110

08323000 RIO GUADALUPE AT BOX CANYON, NEAR JEMEZ, NM

LOCATION.--Lat 35°43'52", long 106°45'44", Sandoval County, Hydrologic Unit 13020202, in Canon 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 mi^2 (609 km^2).

PERIOD OF RECORD.--November 1938 to September 1942, August 1949 to September 1950, (monthly discharge only for November, December 1938 and August 1949 published in WSP 1312), May 1951 to September 1957 (irrigation seasons only), May 1958 to September 1976, July to September 1981. Prior to 1951 published as "08323500 Rio Guadalupe near Jemez Springs".

REVISED RECORDS.--WSP 1712: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,015.5 ft (1,833.52 m) above mean sea level. Prior to 1951 at site 2.4 mi (3.9 km) downstream at lower datums.

REMARKS.--Records good. Flow regulated to some extent since October 1958 by San Gregorio Reservoir on Clear Creek, 24 mi (39 km) upstream (capacity, 345 acre-ft or 0.425 hm^3), and by transmountain diversion into Rio Puerco Basin for irrigation of abouty 300 acres (1.2 km^2) in vicinity of Cuba. Several observations of water temperature were made during the period.

AVERAGE DISCHARGE.--23 years (water years 1939-42, 1950, 1959-76), 43.2 ft^3/s (1.223 m^3/s), 31,300 acre-ft/yr (38.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,190 ft^3/s (90.3 m^3/s) May 13 or 14, 1941, gage height, 8.4 ft (2.56 m) from floodmarks, site and datum in use June 1941 to September 1942, from rating curve extended above 1,000 ft^3/s (28.3 m^3/s); minimum, 2.8 ft^3/s (0.079 m^3/s) Dec. 9, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period July to September, 245 ft^3/s (6.94 m^3/s) Sept. 5, gage height, 4.80 ft (1.463 m) no other peak above base of 100 ft^3/s (2.8 m^3/s); minimum daily, 8.0 ft^3/s (0.23 m^3/s) Aug.25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										---	14	11
2										---	18	11
3										---	15	15
4										---	12	35
5										---	10	145
6										---	9.8	93
7										---	9.8	63
8										---	12	46
9										---	12	29
10										---	16	16
11										---	20	14
12										---	20	13
13										---	17	12
14										---	13	12
15										13	12	11
16										44	13	14
17										34	15	14
18										23	32	15
19										19	24	14
20										15	25	12
21										13	17	11
22										11	10	9.6
23										10	10	9.4
24										9.8	11	10
25										9.2	8.0	13
26										9.5	8.0	11
27										10	9.0	9.8
28										11	11	9.3
29										11	18	8.9
30										9.9	18	9.1
31										9.6	14	---
TOTAL										---	453.6	696.1
MEAN										---	14.6	23.2
MAX										---	32	145
MIN										---	8.0	8.9
AC-FT										---	900	1380

08324000 JEMEZ RIVER NEAR JEMEZ, NM

LOCATION.--Lat 35°39'42", long 106°44'34", Sandoval County, Hydrologic Unit 13020202, in Canon 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 mi^2 (1,220 km^2).

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.

REVISED RECORDS.--WSP 1712: Drainage area. WSP 1923, 1957-58.

GAGE.--Water-stage recorder. Concrete control since Dec. 6, 1965. Datum of gage is 5,622.3 ft (1,713.68 m) National Geodetic Vertical Datum of 1929. 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.

REMARKS.--Records good except those for winter months, which are fair. Diversions for irrigation of about 300 acres (1.2 km^2) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--33 years (water years 1937-40, 1950, 1954-81), 69.6 ft^3/s (1.971 m^3/s), 50,430 acre-ft/yr (62.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,900 ft^3/s (167 m^3/s) Apr. 21, 1958, from rating curve extended above 2,200 ft^3/s (62 m^3/s) on basis of contracted-opening measurement; maximum gage height, 8.6 ft (2.62 m), May 6, 1941, present datum; minimum, 1.2 ft^3/s (0.03 m^3/s) July 25, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1890 occurred between May 6 and 15, 1941, after gage was destroyed (discharge probably exceeded 6,000 ft^3/s or 170 m^3/s), from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 418 ft^3/s (11.8 m^3/s) at 1000 hours Sept. 5, gage height, 5.08 ft (1.548 m); no other peak above base of 1,000 ft^3/s (28.3 m^3/s); minimum discharge, 1.2 ft^3/s (0.03 m^3/s) July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	29	29	29	22	24	47	148	137	72	21	22
2	20	29	25	29	21	26	58	208	139	69	26	22
3	23	28	27	29	24	33	74	239	103	49	21	25
4	23	27	28	28	25	28	56	187	109	34	18	29
5	19	26	30	30	24	23	44	141	85	28	17	149
6	19	25	29	26	23	29	60	131	71	25	14	145
7	21	26	29	24	24	27	168	105	58	26	17	83
8	22	26	30	29	23	25	205	87	45	28	21	70
9	21	26	26	26	27	25	181	75	40	28	23	65
10	21	27	22	25	25	28	138	70	36	29	28	52
11	21	26	27	25	17	33	104	65	32	36	31	39
12	22	26	29	30	21	30	81	59	30	42	34	36
13	23	27	31	27	21	31	97	52	24	27	28	37
14	22	27	29	22	24	37	133	48	21	22	23	34
15	26	27	27	22	25	33	108	51	20	23	17	38
16	37	27	28	27	25	33	102	81	19	50	18	41
17	34	26	28	24	27	32	112	89	18	45	18	46
18	31	21	28	27	30	27	125	83	18	32	43	49
19	29	23	28	23	29	26	161	101	14	25	33	42
20	27	24	25	23	31	30	144	88	14	20	35	33
21	27	26	26	23	32	26	140	71	15	17	28	31
22	26	23	28	25	28	21	140	60	11	14	25	28
23	26	26	29	26	29	27	146	55	17	7.0	26	26
24	24	30	26	28	29	32	148	51	15	3.2	24	29
25	24	26	25	25	29	33	160	51	11	2.1	17	36
26	24	23	29	20	28	39	167	46	12	7.7	21	30
27	31	23	29	24	25	42	169	43	11	4.9	22	27
28	30	26	30	29	24	44	166	43	13	4.9	25	26
29	27	30	31	28	---	45	160	48	19	12	34	23
30	27	29	30	24	---	45	155	55	28	11	30	26
31	28	---	30	29	---	47	---	74	---	17	25	---
TOTAL	774	785	868	806	712	981	3749	2705	1185	810.8	763	1339
MEAN	25.0	26.2	28.0	26.0	25.4	31.6	125	87.3	39.5	26.2	24.6	44.6
MAX	37	30	31	30	32	47	205	239	139	72	43	149
MIN	19	21	22	20	17	21	44	43	11	2.1	14	22
AC-FT	1540	1560	1720	1600	1410	1950	7440	5370	2350	1610	1510	2660

CAL YR 1980 TOTAL 37492.0 MEAN 102 MAX 1020 MIN 14 AC-FT 74370
WTR YR 1981 TOTAL 15477.8 MEAN 42.4 MAX 239 MIN 2.1 AC-FT 30700

RIO GRANDE BASIN
08324000 JEMEZ RIVER NEAR JEMEZ, NM
WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1980 to September 1981.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
DEC											
03...	1030	26	550	8.0	12.5	4.0	10.8	5	130	0	--
JAN											
30...	1045	24	580	8.0	9.0	4.5	--	--	--	--	--
FEB											
12...	1145	19	650	8.5	10.0	4.0	--	--	150	0	--
MAR											
17...	1015	32	625	8.0	8.5	7.0	--	--	--	--	--
APR											
22...	1015	147	240	7.7	22.0	9.0	--	--	--	--	--
MAY											
06...	1330	131	220	8.5	22.0	15.5	--	21	70	--	.00
JUN											
03...	1100	104	260	7.9	16.0	12.0	--	--	--	--	--
JUL											
08...	1330	29	605	8.5	21.0	14.0	--	--	--	--	--
AUG											
05...	1315	19	680	8.4	33.5	24.0	--	--	160	--	.00
SEP											
02...	1215	23	640	8.5	27.0	20.0	--	--	--	--	--

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
DEC											
03...	43	5.6	69	2.6	19	180	14	72	.4	42	374
JAN											
30...	--	--	--	--	--	--	--	--	--	--	--
FEB											
12...	52	5.9	72	2.5	12	--	15	83	.9	42	398
MAR											
17...	--	--	--	--	--	--	--	--	--	--	--
APR											
22...	--	--	--	--	--	--	--	--	--	--	--
MAY											
06...	24	2.5	17	.9	3.2	75	2.4	19	.3	19	133
JUN											
03...	--	--	--	--	--	--	--	--	--	--	--
JUL											
08...	--	--	--	--	--	--	--	--	--	--	--
AUG											
05...	53	6.6	80	2.9	11	200	1.0	100	1.0	43	417
SEP											
02...	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
DEC										
03...	.00	.00	.040	.31	.35	.030	.010	650	30	1.8
JAN										
30...	--	--	--	--	--	--	--	--	--	--
FEB										
12...	--	--	--	--	--	--	--	710	30	--
MAR										
17...	--	--	--	--	--	--	--	--	--	--
APR										
22...	--	--	--	--	--	--	--	--	--	--
MAY										
06...	.00	.00	.120	1.6	1.7	.060	.020	130	40	5.2
JUN										
03...	--	--	--	--	--	--	--	--	--	--
JUL										
08...	--	--	--	--	--	--	--	--	--	--
AUG										
05...	--	--	--	--	--	--	--	770	10	--
SEP										
02...	--	--	--	--	--	--	--	--	--	--

RIO GRANDE BASIN
08324000 JEMEZ RIVER NEAR JEMEZ, NM
WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
MAY										
06...	1330	17	17	130	0	<1	10	10	4	2

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
MAY									
06...	40	1	2	.1	.0	0	1	30	4

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
MAY									
06...	1330	<3.8	1.4	4.7	1.3	4.5	1.2	.57	.8

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
DEC						
03...	1030	26	4.0	5	.35	87
MAY						
06...	1330	131	15.5	27	9.5	86

08328500 JEMEZ CANYON RESERVOIR NEAR BERNALILLO, NM

LOCATION.--Lat 35°23'40", long 106°32'50", in SW¼SW¼ sec.32, T.14 N., R.4 E., Sandoval County, Hydrologic Unit 13020202, 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 mi^2 (2,678 km^2).

PERIOD OF RECORD.--October 1953 to September 1965 (monthend contents only), October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam, completed October 19, 1953. Capacity, 176,200 acre-ft (217 hm^3), from capacity table adapted June 1, 1975, between elevations 5,125.0 ft (1,562.10 m) sill of outlet gates and 5,252.3 ft (1,600.90 m) operating deck of spillway. Maximum controlled capacity, 106,100 acre-ft (130 hm^3) 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). Capacity by original survey was 189,100 acre-ft (233 hm^3). Original plan for reservoir operation was to desilt all flow above 30 ft^3/s (0.85 m^3/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.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 71,220 acre-ft (87.8 hm^3) June 8, 1958, elevation, 5,213.36 ft (1,589.032 m); no storage most of time prior to March 1979.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,900 acre-ft (3.67 hm^3) May 3 elevation, 5,162.87 ft (1,573.643 m); minimum contents, 1,380 acre-ft (1.70 hm^3) April 13, elevation, 5,157.67 ft (1,572.058 m).

Capacity tables, (elevation, in feet, and contents, in acre-feet)

5,137	1	5,150	179	5,175	9,540
5,138	2	5,155	811	5,180	13,710
5,140	6	5,160	1,980	5,185	18,620
5,142	13	5,165	3,700	5,190	24,190
5,146	30	5,170	6,180	5,195	30,450

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1580	1700	1730	1700	1620	1890	2180	2450	2100	2130	1830	1910
2	1570	1710	1730	1720	1570	1900	2100	2670	2200	2450	1830	1900
3	1560	1730	1730	1730	1560	1920	2060	2900	2300	2390	1820	1890
4	1550	1740	1730	1750	1570	1930	2090	2740	2340	2340	1810	1960
5	1540	1740	1730	1760	1580	1930	2130	2410	2320	2290	1790	2170
6	1530	1730	1740	1780	1590	1920	2120	2430	2260	2220	1800	2390
7	1520	1730	1760	1780	1600	1920	2120	2500	2200	2140	1800	2620
8	1510	1720	1780	1790	1620	1920	2240	2460	2110	2070	1820	2570
9	1500	1710	1790	1770	1650	1920	2220	2370	2060	2160	1830	2270
10	1490	1710	1800	1720	1670	1920	2020	2290	2070	2120	1870	2070
11	1480	1710	1770	1670	1670	2000	1760	2270	2060	1960	1980	2040
12	1480	1710	1750	1650	1680	2110	1510	2290	2040	1810	2030	1980
13	1460	1710	1740	1660	1700	2100	1380	2290	2020	1760	1960	1940
14	1460	1700	1730	1670	1710	2090	1460	2270	2010	1760	1940	1920
15	1460	1700	1720	1680	1720	2070	1680	2280	1990	1790	1940	1950
16	1450	1700	1700	1680	1730	2020	1830	2320	1980	1820	1940	1980
17	1450	1710	1680	1670	1740	2010	1960	2360	1970	1860	1940	2040
18	1460	1720	1660	1690	1750	1950	2150	2400	1960	1890	1960	2120
19	1470	1730	1630	1700	1760	1920	2340	2390	1940	1940	1980	2100
20	1480	1720	1620	1710	1780	1920	2580	2370	1930	1950	1970	2080
21	1490	1720	1620	1720	1800	1930	2660	2300	1910	1940	1970	2050
22	1500	1710	1620	1730	1810	1950	2600	2260	1900	1930	1960	2000
23	1510	1710	1640	1730	1830	1970	2490	2240	1890	1910	1960	1970
24	1520	1710	1640	1740	1850	1980	2520	2230	1880	1910	1950	1980
25	1530	1720	1640	1740	1860	2000	2570	2210	1860	1900	1940	1990
26	1540	1720	1650	1740	1870	2030	2610	2200	1850	1890	1930	1990
27	1550	1710	1650	1740	1880	2060	2620	2180	1840	1880	1920	1990
28	1590	1710	1660	1740	1890	2120	2540	2150	1830	1870	1920	1980
29	1620	1710	1660	1750	---	2170	2500	2120	1820	1860	1920	1980
30	1650	1720	1670	1720	---	2210	2220	2090	1830	1850	1920	1980
31	1680	---	1680	1680	---	2230	---	2080	---	1840	1910	---
MAX	1680	1740	1800	1790	1890	2230	2660	2900	2340	2450	2030	2620
MIN	1450	1700	1620	1650	1560	1890	1380	2080	1820	1760	1790	1890
(†)	5158.89	5159.02	5158.88	5158.86	5159.65	5160.82	5161.46	5160.32	5159.45	5159.49	5159.75	5159.97
(‡)	+90	+40	-40	0	+210	+340	-10	-140	-250	+10	+70	+70

CAL YR 1980 MAX 6950 MIN 1450 (‡) -270
WTR YR 1981 MAX 2900 MIN 1380 (‡) +390

(†) ELEVATION, IN FEET, AT END OF MONTH
(‡) CHANGE IN CONTENTS, IN ACRE-FEET

08329000 JEMEZ RIVER BELOW JEMEZ CANYON DAM, NM

LOCATION.--Lat 35°23'24", long 106°32'03", in NE¼ sec.5, T.13 N., R.4 E., Sandoval County, Hydrologic Unit 13020202, 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 mi^2 (2,688 km^2).

WATER-DISCHARGE RECORDS

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.

REVISED RECORDS.--WSP 1178: 1949. WSP 1212: 1950. WSP 1512: 1936, 1943, 1945, 1947-48, 1949(M), 1950. WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,095.60 ft (1,553.139 m) National Geodetic Vertical Datum of 1929, 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.

REMARKS.--Water-discharge records good. Subsequent to October 1953, flow at this station can be completely gulated by Jemez Canyon Reservoir (station 08328500). However, reservoir is designed essentially for desilting and flood control rather than storage. Diversions for irrigation of about 3,000 acres (12 km^2) above station.

AVERAGE DISCHARGE.--39 years (water years 1937, 1944-81), 55.3 ft^3/s (1.566 m^3/s), 40,060 acre-ft/yr (49.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,300 ft^3/s (462 m^3/s) Aug. 29, 1943, gage height, 5.62 ft (1.713 m), site and datum then in use, from rating curve extended above 3,000 ft^3/s (85.0 m^3/s); no flow for many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood in 1900 was probably less than 16,000 ft^3/s (453 m^3/s), but highest observed outside period of record.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 473 ft^3/s (13.4 m^3/s) May 4, gage height, 6.55 ft (1.996 m); no flow, Aug. 11, Sept.7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	.45	18	17	43	12	58	141	20	9.0	.60	.15
2	1.6	.60	18	16	42	12	78	109	20	23	.59	.18
3	1.8	.60	18	16	25	13	56	107	20	47	.45	.21
4	2.1	4.8	18	16	13	14	18	322	49	45	.45	.22
5	2.1	13	18	16	12	14	18	358	59	44	.45	.42
6	1.7	14	18	16	12	14	37	121	62	44	1.4	.28
7	1.7	14	18	16	12	14	63	54	61	43	.48	.00
8	1.3	14	18	16	12	14	104	91	61	42	.30	89
9	1.3	14	18	35	12	14	212	89	28	67	.30	185
10	1.3	14	18	50	13	14	260	89	1.4	93	.18	129
11	1.2	14	38	49	12	14	258	52	1.5	91	.00	26
12	1.2	14	45	30	13	13	252	21	1.5	90	52	26
13	1.2	14	34	16	13	24	152	21	1.5	37	52	26
14	1.2	14	33	16	12	32	45	21	1.4	2.4	8.0	11
15	.95	14	33	16	12	31	14	21	1.3	2.2	.13	.28
16	.80	14	33	16	10	31	19	20	1.3	2.1	.15	.14
17	.75	14	32	13	11	31	25	19	1.3	5.8	.15	.14
18	.75	13	32	13	12	30	25	19	1.3	1.1	.15	7.2
19	.60	17	27	13	13	30	25	43	1.2	.70	.15	24
20	.52	21	18	14	13	12	25	65	1.1	.60	.15	24
21	.45	21	18	15	14	3.6	54	77	1.0	.60	.15	24
22	.45	21	18	15	13	3.2	150	43	1.0	.60	.15	24
23	.45	20	18	15	13	2.7	150	20	1.0	.60	.15	9.7
24	.45	20	17	15	13	2.3	97	20	.90	.60	.15	.86
25	.60	20	17	15	12	1.7	96	20	1.0	.64	.15	.86
26	.60	19	18	15	12	1.3	96	20	1.0	.61	.15	.70
27	.60	19	18	15	12	1.0	128	20	1.0	.60	.24	.70
28	.60	18	18	15	13	.86	163	20	1.0	.56	.28	.70
29	.60	18	18	15	---	.70	161	20	.90	.56	.15	.70
30	.60	18	18	26	---	6.8	161	20	1.0	.75	.15	.70
31	.50	---	17	44	---	19	---	20	---	.71	.15	---
TOTAL	31.77	432.45	700	615	419	426.16	3000	2083	404.60	696.73	119.95	612.14
MEAN	1.02	14.4	22.6	19.8	15.0	13.7	100	67.2	13.5	22.5	3.87	20.4
MAX	2.1	21	45	50	43	32	260	358	62	93	52	185
MIN	.45	.45	17	13	10	.70	14	19	.90	.56	.00	.00
AC-FT	63	858	1390	1220	831	845	5950	4130	803	1380	238	1210

CAL YR 1980 TOTAL 34330.94 MEAN 93.8 MAX 703 MIN .00 AC-FT 68100
WTR YR 1981 TOTAL 9540.80 MEAN 26.1 MAX 358 MIN .00 AC-FT 18920

08329000 JEMEZ RIVER BELOW JEMEZ CANYON DAM, NM -- Continued

WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT											
09...	1710	1.3	1300	8.1	--	20.0	--	--	--	--	--
NOV											
05...	1200	13	1340	8.5	--	12.0	180	25	--	55	9.2
DEC											
03...	1515	17	1350	8.4	15.0	6.0	--	--	--	--	--
JAN											
30...	1400	15	1400	8.3	10.5	7.0	--	--	--	--	--
FEB											
12...	1430	13	1700	8.5	12.5	7.5	230	0	--	72	12
MAR											
17...	1315	31	1700	8.4	9.0	10.0	--	--	--	--	--
APR											
22...	1230	204	960	7.9	22.0	14.0	--	--	--	--	--
MAY											
07...	1200	34	625	8.4	22.5	16.0	120	--	18	38	5.4
JUN											
03...	1330	20	800	8.5	23.0	19.0	--	--	--	--	--
JUL											
02...	1240	.33	280	8.0	25.0	23.0	--	--	--	--	--
AUG											
03...	1430	.48	1790	8.3	36.5	32.5	340	--	130	107	18
SEP											
02...	1045	.20	2600	8.1	25.0	23.0	--	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
OCT											
09...	--	--	--	--	--	--	--	--	--	--	--
NOV											
05...	210	6.9	10	150	220	170	1.1	18	784	950	<10
DEC											
03...	--	--	--	--	--	--	--	--	--	--	--
JAN											
30...	--	--	--	--	--	--	--	--	--	--	--
FEB											
12...	290	8.3	13	230	250	270	1.3	33	1080	1400	10
MAR											
17...	--	--	--	--	--	--	--	--	--	--	--
APR											
22...	--	--	--	--	--	--	--	--	--	--	--
MAY											
07...	86	3.5	6.9	99	110	77	.6	11	395	400	110
JUN											
03...	--	--	--	--	--	--	--	--	--	--	--
JUL											
02...	--	--	--	--	--	--	--	--	--	--	--
AUG											
03...	250	6.2	12	210	400	220	.8	21	1160	960	<10
SEP											
02...	--	--	--	--	--	--	--	--	--	--	--

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM

LOCATION.--Lat 35°11'58", long 106°35'53", Bernalillo County, Hydrologic Unit 13020203, 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.

REMARKS.--Records good except those below 25 ft^3/s (0.71 m^3/s), which are fair. 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft^3/s (312 m^3/s) Aug. 14, 1980, gage height, 10.4 ft (3.170 m) from rating curve extended above 2,900 ft^3/s (82 m^3/s); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,600 ft^3/s (73.6 m^3/s) at 2300 hours Aug. 20, gage height, 4.10 ft (1.250 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00						---	.00	.00	132	.00	.00
2	.00						---	50	.00	.00	.00	.00
3	.00						---	.00	21	.00	.00	.00
4	.00						---	.00	.00	.00	.00	.00
5	.00						---	12	.00	.00	79	105
6	.00						.00	.00	.00	.00	.00	2.9
7	.00						.00	.00	.00	69	76	.00
8	.00						.00	.00	.00	.00	.00	.00
9	.00						.00	.00	.00	.00	.00	.00
10	.00						.00	.00	.00	.00	.00	.00
11	.00						25	.00	.00	.00	227	.00
12	.00						.00	.00	.00	.00	18	.00
13	.00						.00	.00	.00	.00	.00	.00
14	.00						.00	.00	.00	.00	.00	.00
15	.00						.00	.00	.00	62	.00	7.2
16	.00						.00	88	.00	15	27	3.5
17	.00						.00	.00	.00	.00	62	.00
18	.00						.00	.00	.00	.00	.00	.00
19	.00						.00	.00	.00	.00	.00	.00
20	.00						.00	.00	.00	.00	55	.00
21	.00						.00	.00	.00	.00	41	.00
22	.00						.00	.00	.00	.00	.00	.00
23	.00						.00	.00	.00	.00	.00	.00
24	.00						.00	.00	.00	12	.00	.00
25	.00						.00	.00	66	.00	.00	.00
26	.00						.00	.00	.00	.00	.00	.00
27	.00						.00	.00	20	.00	5.2	.00
28	---						.00	.00	.00	.00	3.5	.00
29	---						.00	38	.00	.00	.00	.00
30	---						.00	.00	.00	.00	4.3	.00
31	---						---	.00	---	18	.00	---
TOTAL	---						---	188.00	107.00	308.00	598.00	118.60
MEAN	---						---	6.06	3.57	9.94	19.3	3.95
MAX	---						---	88	66	132	227	105
MIN	---						---	.00	.00	.00	.00	.00
AC-FT	---						---	373	212	611	1190	235

08330000 RIO GRANDE AT ALBUQUERQUE, NM

LOCATION.--Lat 35°05'21", long 106°40'48", Bernalillo County, Hydrologic Unit 13020203, in Atrisco Grant, at downstream side of Old Town Bridge on old U.S. Highway 66 at Albuquerque, and at mile 1,540.0 (2,477.9 km).
DRAINAGE AREA.--17,440 mi^2 (45,170 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to current year. Monthly discharge only for some periods, published in WSP 1312.
REVISED RECORDS.--WSP 1312: 1946(M).
GAGE.--Water-stage recorder. Datum of gages is 4,946.16 ft (1,507.590 m) National Geodetic Vertical Datum of 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.
REMARKS.--Water-discharge records good. Flow completely regulated since November 1973 by Cochiti Dam (station 08317300) 50 mi (80 km) upstream. Possible regulation by operation of reservoirs on Rio Chama and by flood-and-silt-detention reservoirs on Galisteo Creek and Jemez River (stations 08285000, 08286900, 08317900, 08328500). Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510). Diversions above station for irrigation of about 718,000 acres (2,900 km^2), several hundred of which are below station. National Weather Service gage height telemeter at station.
COOPERATION.--Records for Albuquerque Riverside drain and Arenal, Armijo, and Atrisco canals furnished by Middle Rio Grande Conservancy District.
AVERAGE DISCHARGE.--32 years (water years 1942-73), 1,068 ft^3/s (30.25 m^3/s), 773,800 acre-ft/yr (0.95 km^3/yr) prior to closure of Cochiti Dam.
8 years (water years 1974-81), 1,125 ft^3/s (31.86 m^3/s), 815,100 acre-ft/yr (1.01 km^3/yr) since closure of Cochiti Dam.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft^3/s (708 m^3/s) Apr. 24, 1942, from rating curve extended above 13,900 ft^3/s (394 m^3/s); maximum gage height, 7.82 ft (2.384 m) Aug. 10, 1967; no flow at times.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,750 ft^3/s (77.9 m^3/s) at 0815 hours Aug. 21, gage height, 5.00 ft (1.524 m); maximum gage height, 5.04 ft (1.536 m) May 5; minimum daily, 3.6 ft^3/s (0.10 m^3/s) Sept. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	288	1510	1920	542	1320	130	331	421	973	579	100
2	158	349	1610	1740	570	1080	81	270	394	765	549	59
3	294	522	1660	1470	599	833	75	274	421	769	539	33
4	488	1240	1690	1330	574	558	69	817	607	534	506	41
5	422	1410	1740	1330	542	773	56	2170	706	278	329	62
6	385	1520	1740	1330	487	681	427	1730	616	143	178	178
7	385	1550	1730	1330	477	609	686	1030	605	86	130	406
8	415	1470	1840	1150	481	644	469	908	446	189	90	433
9	356	1280	1650	919	656	550	194	823	220	91	50	395
10	264	1190	1490	935	496	450	168	637	111	94	30	350
11	218	1400	1370	890	383	396	167	417	65	132	33	255
12	136	1520	1460	700	392	330	160	164	58	247	243	187
13	154	1560	1450	581	496	317	242	180	35	246	443	164
14	82	1560	1370	572	908	525	354	130	15	271	867	138
15	40	1590	1330	603	993	790	302	141	26	164	791	95
16	43	1600	1490	677	1020	609	491	168	336	171	366	83
17	40	1630	1540	714	1060	413	718	100	306	119	323	81
18	49	1690	1550	735	657	412	700	55	295	95	198	113
19	70	1680	1540	730	359	365	656	36	378	80	112	170
20	55	1640	1530	551	401	408	621	68	509	65	101	163
21	43	1660	1530	452	822	403	511	204	659	60	765	136
22	40	1630	1540	522	865	417	539	387	695	60	257	20
23	46	1590	1530	592	694	376	625	437	665	80	271	20
24	49	1580	1530	655	442	333	558	608	638	231	275	26
25	58	1480	1480	662	307	318	471	590	669	427	639	23
26	46	1440	1440	606	300	295	373	379	770	506	529	28
27	55	1450	1460	595	429	285	331	157	639	889	440	21
28	38	1450	1490	586	1090	306	148	120	613	823	363	11
29	40	1430	1490	588	---	354	301	215	663	611	342	3.6
30	46	1430	1550	552	---	336	428	244	757	570	170	15
31	105	---	1760	541	---	295	---	301	---	565	140	---
TOTAL	4782	41829	48090	26558	17042	15781	11051	14091	13338	10334	10648	3809.6
MEAN	154	1394	1551	857	609	509	368	455	445	333	343	127
MAX	488	1690	1840	1920	1090	1320	718	2170	770	973	867	433
MIN	38	288	1330	452	300	285	56	36	15	60	30	3.6
AC-FT	9490	82970	95390	52680	33800	31300	21920	27950	26460	20500	21120	7560
(†)	14890	1310	1630	1120	972	8990	11100	15490	16270	19590	19810	13700

CAL YR 1980 TOTAL 698553.0 MEAN 1909 MAX 7130 MIN 6.0 AC-FT 1386000 (†) 116000
WTR YR 1981 TOTAL 217353.6 MEAN 595 MAX 2170 MIN 3.6 AC-FT 431100 (†) 124900

(†) COMBINED FLOW, IN ACRE-FT, OF ALBUQUERQUE RIVERSIDE DRAIN, AND ARENAL, ARMIJO, AND ATRISCO CANALS. THIS FLOW WHICH BY PASSES RIVER GAGE, CAN BE ADDED TO RIVER RECORDS TO GET ENTIRE FLOW IN VALLEY CROSS-SECTION.

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1969 to current year.
WATER TEMPERATURES: October 1969 to current year.
SUSPENDED SEDIMENT DISCHARGE: May 1969 to September 1969 (partial-record station), October 1969 to current year.

REMARKS.--Additional sediment total discharge determination were made bi-weekly when needed.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,840 micromhos Oct. 12, 1974; minimum daily 115 microhomos Aug. 14, 1980.
WATER TEMPERATURES: Maximum, 34.0°C July 12, 1970; minimum, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 45,500 mg/L July 21, 1971; minimum daily, no flow on many days in 1971, 1972, and 1977
SEDIMENT LOADS: Maximum daily, 275,000 tons (249,000 tonnes) July 27, 1971; minimum daily; 0 tons (0 tonnes) on many days in 1971, 1972, and 1977.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1160 micromhos Aug. 21; minimum daily, 320 micromhos April 13.
WATER TEMPERATURES: Maximum, 28.0°C July 13; minimum, 3.0°C on Dec. 10-12, Jan 19.
SEDIMENT CONCENTRATIONS: Maximum daily, 37,100 mg/L Aug. 21; minimum daily, 15 mg/L Feb. 12.
SEDIMENT LOADS: Maximum daily, 111,000 tons (101,000 tonnes) Aug. 21; minimum daily, 1.1 tons (1.0 tonnes) Sept. 29.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
NOV											
12...	1211	1380	400	8.2	17.5	12.5	8.8	46	140	27	--
DEC											
19...	1415	1540	365	8.0	9.0	6.5	--	--	--	--	--
JAN											
19...	1100	768	390	7.9	4.0	3.0	--	--	--	--	--
FEB											
17...	1200	1110	390	8.4	17.5	7.5	--	--	150	25	--
MAR											
16...	1200	623	420	7.9	14.0	10.5	--	--	--	--	--
APR											
13...	1100	333	320	8.2	20.0	13.0	--	--	--	--	--
MAY											
19...	1445	20	500	8.2	22.0	26.0	--	26	170	--	36
JUN											
15...	1200	17	500	8.3	19.5	20.5	--	--	--	--	--
JUL											
13...	1000	208	570	8.3	23.0	28.0	--	--	--	--	--
AUG											
24...	1215	276	490	8.2	27.0	23.0	--	--	170	--	37
SEP											
14...	1040	92	510	8.1	23.0	18.0	--	--	--	--	--

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
NOV											
12...	42	7.8	25	.9	3.4	110	70	8.1	.4	19	242
DEC											
19...	--	--	--	--	--	--	--	--	--	--	--
JAN											
19...	--	--	--	--	--	--	--	--	--	--	--
FEB											
17...	45	7.9	27	1.0	2.9	120	85	11	.4	22	273
MAR											
16...	--	--	--	--	--	--	--	--	--	--	--
APR											
13...	--	--	--	--	--	--	--	--	--	--	--
MAY											
19...	51	9.5	30	1.0	3.7	130	88	11	.3	19	291
JUN											
15...	--	--	--	--	--	--	--	--	--	--	--
JUL											
13...	--	--	--	--	--	--	--	--	--	--	--
AUG											
24...	53	8.4	31	1.1	4.0	130	100	9.4	.4	22	306
SEP											
14...	--	--	--	--	--	--	--	--	--	--	--

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV											
12...	--	.00	.00	.100	.62	.72	.220	.010	80	10	11
DEC											
19...	--	--	--	--	--	--	--	--	--	--	--
JAN											
19...	--	--	--	--	--	--	--	--	--	--	--
FEB											
17...	--	--	--	--	--	--	--	--	50	< 10	--
MAR											
16...	--	--	--	--	--	--	--	--	--	--	--
APR											
13...	--	--	--	--	--	--	--	--	--	--	--
MAY											
19...	.000	.00	.00	.130	.54	.67	.090	.070	80	10	5.5
JUN											
15...	--	--	--	--	--	--	--	--	--	--	--
JUL											
13...	--	--	--	--	--	--	--	--	--	--	--
AUG											
24...	--	--	--	--	--	--	--	--	60	12	--
SEP											
14...	--	--	--	--	--	--	--	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)
MAY										
19...	1445	10	3	80	0	<1	0	0	6	1

DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
MAY									
19...	10	10	1	.0	.0	0	0	20	5

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
MAY									
19...	1445	<7.0	2.7	5.1	2.6	4.9	2.4	.08	3.7

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-AZINON, TOTAL (UG/L) (39570)	DI-ELDRIN TOTAL (UG/L) (39380)
MAY									
19...	1445	--	--	--	--	--	--	--	--
AUG									
24...	1215	.00	.00	.00	.00	.00	.00	.00	.00

DATE	ENDO-SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METHYL PARA-THION, TOTAL (UG/L) (39600)
MAY									
19...	--	--	--	--	--	--	--	--	--
AUG									
24...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL TRI-THION, TOTAL (UG/L) (39790)	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PER-THANE TOTAL (UG/L) (39034)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
MAY									
19...	--	--	--	--	.00	.00	--	--	--
AUG									
24...	.00	.00	0	.00	--	--	.00	.00	.00

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .008 MM (70339)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .031 MM (70341)
NOV										
05...	1200	1440	14.0	813	3160	26	33	41	55	70
10...	1011	1130	10.0	363	1110	7	14	20	25	33
DEC										
01...	1030	1450	7.0	340	1330	9	11	13	16	22
15...	1451	1260	7.5	281	956	9	11	13	15	20
JAN										
12...	1012	685	5.0	96	178	11	13	14	15	19
26...	1450	633	8.0	85	145	--	--	--	--	--
FEB										
17...	1050	1100	7.5	175	520	7	8	9	11	15
MAR										
02...	1101	1090	8.0	165	486	8	10	12	15	20
16...	1145	623	10.5	98	165	15	18	21	26	32
30...	1430	353	16.5	40	38	--	--	--	--	--
APR										
20...	1020	641	17.0	68	118	22	26	30	35	41
MAY										
04...	1200	725	15.0	2210	4330	39	50	--	89	--
11...	1234	403	18.5	67	73	32	40	47	54	59
JUN										
01...	1101	468	19.0	122	154	22	27	34	41	49
05...	1100	700	16.0	4670	8830	62	77	--	98	--
08...	1108	422	23.5	214	244	34	43	--	68	--
22...	1042	694	23.0	390	731	18	22	--	38	--
JUL										
01...	1200	695	22.0	7570	14200	61	75	--	99	--
02...	1100	434	21.0	6210	7280	71	85	--	100	--
06...	1120	121	24.0	265	87	58	74	--	92	--
27...	1330	584	27.0	685	1080	39	48	--	76	--
28...	0930	695	21.0	10600	19900	52	64	--	85	--
AUG										
10...	1400	28	24.5	179	14	71	84	--	86	--
17...	1117	259	23.5	346	242	50	61	--	82	--
21...	1200	1070	19.0	45800	132000	42	57	--	87	--
24...	1142	260	23.0	1320	927	44	55	--	74	--
29...	1300	270	18.0	14600	10600	64	82	--	98	--
SEP										
08...	1028	367	19.0	1720	1700	38	52	--	73	--
09...	1000	390	16.0	2050	2160	37	52	--	90	--

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)
NOV										
05...	--	--	--	--	--	92	95	99	100	--
10...	47	55	87	100	--	--	--	--	--	--
DEC										
01...	31	39	80	100	--	--	--	--	--	--
15...	30	37	73	99	100	--	--	--	--	--
JAN										
12...	24	32	69	100	--	--	--	--	--	--
26...	19	29	73	100	--	--	--	--	--	--
FEB										
17...	23	36	84	100	--	--	--	--	--	--
MAR										
02...	30	44	78	99	100	--	--	--	--	--
16...	41	50	82	99	100	--	--	--	--	--
30...	--	--	--	--	--	59	68	91	100	--
APR										
20...	50	59	82	99	100	--	--	--	--	--
MAY										
04...	--	--	--	--	--	98	100	--	--	--
11...	--	--	--	--	--	71	75	89	99	100
JUN										
01...	61	66	90	100	--	--	--	--	--	--
05...	--	--	--	--	--	100	--	--	--	--
08...	78	79	87	99	100	--	--	--	--	--
22...	53	56	65	96	100	--	--	--	--	--
JUL										
01...	100	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	97	98	100	--	--
27...	90	92	97	100	--	--	--	--	--	--
28...	87	87	88	98	100	--	--	--	--	--
AUG										
10...	--	--	--	--	--	99	99	100	--	--
17...	--	--	--	--	--	94	96	99	100	--
21...	99	100	--	--	--	--	--	--	--	--
24...	94	94	98	100	--	--	--	--	--	--
29...	100	--	--	--	--	--	--	--	--	--
SEP										
08...	79	80	87	99	100	--	--	--	--	--
09...	--	--	--	--	--	99	99	100	--	--

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)
NOV									
10...	1011	1130	363	1110	2	4	37	75	--
DEC									
01...	1030	1450	340	1330	1	1	33	84	--
15...	1451	1260	281	956	6	10	39	79	--
JAN									
12...	1012	685	96	178	1	2	31	74	--
26...	1450	633	85	145	2	3	32	82	--
FEB									
17...	1050	1100	175	520	1	3	42	79	--
MAR									
02...	1101	1090	165	486	1	2	34	76	--
16...	1145	623	98	165	1	4	37	73	--
APR									
20...	1020	641	68	118	1	2	32	78	--
MAY									
11...	1234	403	67	73	--	--	--	--	0
JUN									
01...	1101	468	122	154	1	5	43	78	--
08...	1108	422	214	244	1	2	30	64	--
22...	1042	694	390	731	1	2	32	77	--
JUL									
06...	1120	121	265	87	2	6	55	90	--
27...	1330	584	685	1080	1	1	38	90	--
AUG									
17...	1117	259	346	242	1	1	31	83	--
24...	1142	260	1320	927	0	0	38	88	--
SEP									
08...	1028	367	1720	1700	13	17	46	87	--

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

WATER-QUALITY RECORDS

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
NOV									
10...	--	--	--	83	86	87	87	87	100
DEC									
01...	--	--	--	94	95	95	97	100	--
15...	--	--	--	86	88	89	91	94	100
JAN									
12...	--	--	--	85	88	89	91	95	100
26...	--	--	--	91	94	95	96	97	100
FEB									
17...	--	--	--	86	88	90	92	96	100
MAR									
02...	--	--	--	85	88	89	90	91	100
16...	--	--	--	79	82	85	90	95	100
APR									
20...	--	--	--	90	93	96	98	100	--
MAY									
11...	1	23	65	79	83	86	90	96	100
JUN									
01...	--	--	--	85	88	90	93	94	100
08...	--	--	--	69	74	79	85	92	100
22...	--	--	--	88	91	92	94	96	100
JUL									
06...	--	--	--	97	99	100	--	--	--
27...	--	--	--	97	99	99	99	100	--
AUG									
17...	--	--	--	89	91	92	95	99	100
24...	--	--	--	96	98	99	100	--	--
SEP									
08...	--	--	--	95	97	98	99	100	--

TOTAL SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SEDI-MENT, DISCH, SUSP. + BED MA-TERIAL (T/DAY) (80156)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOC-ITY, MEAN (FPS) (00055)
NOV									
10...	1011	1130	10.0	363	1110	1680	320	1.6	2.20
DEC									
01...	1030	1450	7.0	340	1330	2220	321	1.9	2.40
15...	1451	1260	7.5	281	956	1590	325	1.7	2.30
JAN									
12...	1012	685	5.0	96	178	338	299	1.3	1.80
26...	1450	633	8.0	85	145	343	330	1.1	1.80
FEB									
17...	1050	1100	7.5	175	520	1170	330	1.5	2.20
MAR									
02...	1101	1090	8.0	165	486	860	315	1.6	2.10
16...	1145	623	10.5	98	165	280	220	1.6	1.80
APR									
20...	1020	641	17.0	68	118	258	240	1.4	1.90
JUN									
08...	1108	422	23.5	214	244	332	240	1.1	1.50
22...	1042	694	23.0	390	731	1180	300	1.3	1.80
JUL									
27...	1330	584	27.0	685	1080	1360	280	1.1	1.80
AUG									
17...	1117	259	23.5	346	242	265	220	.94	1.20
24...	1142	260	23.0	1320	927	1220	170	.77	2.00

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	437	498	409	403	496	435	493	598	549	441	495	527
2	440	496	---	397	500	433	---	613	541	459	495	536
3	439	444	352	407	502	444	507	---	533	498	499	536
4	415	424	384	412	470	460	500	747	590	636	500	531
5	422	416	393	418	465	452	495	660	595	616	349	---
6	418	418	397	419	469	444	482	583	548	630	359	---
7	421	424	402	403	469	466	510	---	550	613	488	---
8	420	421	---	427	469	455	548	---	547	421	505	471
9	425	432	---	438	452	458	625	572	498	525	516	496
10	433	431	399	486	454	460	798	571	532	528	538	810
11	438	428	400	482	484	438	926	601	516	534	516	824
12	---	421	418	478	487	448	927	605	513	636	360	590
13	444	424	418	475	491	458	900	584	520	639	480	575
14	453	424	417	473	450	581	767	582	---	---	509	566
15	465	423	417	473	---	502	627	585	513	---	484	568
16	---	419	411	470	445	516	481	539	501	431	478	562
17	470	418	405	468	441	521	469	571	490	525	392	562
18	463	418	411	---	443	520	466	---	485	---	383	543
19	---	414	413	463	480	526	474	579	480	---	499	---
20	458	416	407	462	489	484	474	578	476	544	506	---
21	423	415	408	---	453	484	501	517	470	569	1160	599
22	445	411	400	---	---	457	501	549	469	---	659	552
23	462	413	360	474	446	460	575	545	466	554	666	---
24	462	410	388	---	472	457	577	533	461	517	562	---
25	467	411	394	---	427	460	---	532	462	---	---	543
26	---	---	---	473	477	458	550	540	453	---	463	543
27	468	---	---	475	493	462	551	552	453	479	462	552
28	470	---	---	475	437	455	567	556	446	608	448	579
29	480	---	404	476	---	---	556	559	446	498	660	588
30	483	---	403	438	---	452	597	---	437	492	535	---
31	490	---	406	458	---	454	---	551	---	493	529	---
MEAN	449	427	401	451	468	470	587	577	501	537	517	575

WTR YR 1981 MEAN 496 MAX 1160 MIN 349

TEMPERATURE, WATER (DEG.°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	14.0	7.0	13.0	5.0	10.0	9.0	11.0	17.0	22.0	21.0	17.0
2	16.0	15.0	---	5.0	5.0	8.0	---	8.0	16.0	21.0	17.0	17.0
3	16.0	14.0	10.0	7.0	5.0	7.0	7.0	---	18.0	22.0	23.0	19.0
4	18.0	14.0	9.0	6.0	5.0	6.0	8.0	15.0	17.0	21.0	22.0	17.0
5	19.0	14.0	11.0	5.0	6.0	7.0	8.0	16.0	16.0	22.0	22.0	---
6	16.0	15.0	10.0	6.0	5.0	7.0	9.0	14.0	18.0	24.0	17.0	---
7	16.0	14.0	11.0	6.0	7.0	8.0	9.0	---	21.0	22.0	18.0	---
8	17.0	15.0	---	5.0	6.0	7.0	10.0	---	15.0	21.0	19.0	19.0
9	16.0	10.0	---	5.0	5.0	8.0	10.0	14.0	20.0	21.0	18.0	16.0
10	15.0	11.0	3.0	6.0	4.0	7.0	10.0	15.0	21.0	22.0	18.0	17.0
11	16.0	11.0	3.0	5.0	5.0	8.0	11.0	15.0	20.0	23.0	17.0	16.0
12	---	12.0	3.0	5.0	6.0	7.0	11.0	14.0	21.0	22.0	17.0	16.0
13	15.0	11.0	5.0	6.0	5.0	8.0	9.0	15.0	22.0	22.0	16.0	16.0
14	15.0	11.0	6.0	5.0	6.0	8.0	7.0	14.0	---	---	17.0	16.0
15	15.0	10.0	5.0	5.0	---	8.0	10.0	15.0	20.0	---	17.0	16.0
16	---	8.0	5.0	5.0	6.0	8.0	8.0	15.0	21.0	23.5	18.0	15.0
17	13.0	8.0	7.0	6.0	9.0	7.0	10.0	14.0	20.0	23.0	19.0	15.0
18	13.0	8.0	6.0	---	7.0	7.0	11.0	---	21.0	---	18.0	15.0
19	---	8.0	6.0	5.0	8.0	8.0	10.0	15.0	22.0	---	18.0	---
20	14.0	7.0	5.0	5.0	7.0	8.0	9.0	15.0	22.0	24.0	17.0	---
21	14.0	7.0	6.0	---	6.0	7.0	10.0	15.0	21.0	24.0	19.0	14.0
22	15.0	8.0	5.0	---	---	9.0	11.0	16.0	18.0	---	19.0	15.0
23	14.0	8.0	5.0	6.0	6.0	8.0	11.0	17.0	22.0	24.0	17.0	---
24	13.0	7.0	6.0	---	8.0	9.0	11.0	16.0	21.0	24.5	17.0	---
25	13.0	7.0	4.0	---	8.0	9.0	---	15.0	22.0	---	---	14.0
26	---	---	---	6.0	8.0	8.0	12.0	16.0	22.0	---	18.0	14.0
27	11.0	---	---	6.0	8.0	7.0	9.0	16.0	22.0	27.0	19.0	14.0
28	10.0	---	---	5.0	11.0	7.0	11.0	16.0	22.0	21.0	17.0	16.0
29	13.0	---	6.0	5.0	---	---	14.0	16.0	20.0	23.0	18.0	14.0
30	14.0	---	6.0	5.0	---	9.0	11.0	---	21.0	22.0	17.0	---
31	14.0	---	5.0	6.0	---	7.0	---	16.0	---	21.0	16.0	---
MEAN	14.5	10.5	6.0	6.0	6.5	7.5	10.0	15.0	20.0	22.5	18.0	16.0

WTR YR 1981 MEAN 12.5 MAX 27.0 MIN 3.0

RIO GRANDE BASIN
08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued
WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	100	44	144	112	330	1350	232	1200	28	41	76	271
2	90	38	130	122	279	1210	179	841	27	42	115	335
3	260	206	244	344	245	1100	140	556	27	44	53	119
4	395	520	803	2690	185	844	115	413	22	34	231	348
5	195	222	805	3060	175	822	108	388	23	34	92	192
6	155	161	658	2700	185	869	108	388	20	26	53	97
7	171	178	472	1980	149	696	100	359	22	28	40	66
8	106	119	382	1520	158	785	88	273	25	32	33	57
9	110	106	302	1040	149	664	63	156	50	89	35	52
10	83	59	369	1190	135	543	59	149	35	47	41	50
11	70	41	320	1210	125	462	48	115	19	20	43	46
12	50	18	290	1190	132	520	68	129	15	16	25	22
13	77	32	310	1310	100	391	36	56	32	43	23	20
14	53	12	315	1330	100	370	42	65	100	245	92	130
15	47	5.1	265	1140	173	621	35	57	75	201	75	160
16	47	5.5	222	959	154	620	41	75	65	179	85	140
17	44	4.8	238	1050	135	561	36	69	101	289	52	58
18	46	6.1	410	1870	140	586	34	67	44	78	34	38
19	43	8.1	205	930	149	620	37	73	16	16	28	28
20	40	5.9	199	881	134	554	39	58	16	17	43	47
21	43	5.0	205	919	131	541	36	44	70	155	39	42
22	41	4.4	203	893	135	561	38	54	110	257	20	23
23	46	5.7	200	859	129	533	44	70	99	186	19	19
24	46	6.1	203	866	138	570	49	87	54	64	26	23
25	45	7.0	211	843	135	539	53	95	18	15	25	21
26	45	5.6	240	933	135	525	57	93	18	15	98	78
27	35	5.2	250	979	142	560	33	53	21	24	35	27
28	29	3.0	245	959	130	523	29	46	112	330	40	33
29	33	3.6	283	1090	134	539	27	43	---	---	41	39
30	36	4.5	300	1160	170	711	28	42	---	---	37	34
31	47	16	---	---	166	789	27	39	---	---	35	28
TOTAL	---	1857.6	---	36129	---	20579	---	6153	---	2567	---	2643

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	45	16	45	40	99	113	9330	21300	383	599	213	58
2	31	6.8	49	36	65	69	9680	18400	375	556	112	18
3	21	4.3	54	40	66	75	10300	21400	435	633	204	18
4	42	7.8	1860	5300	3950	6470	4300	6200	310	424	373	41
5	36	5.4	1110	6500	4100	7820	275	206	307	273	388	65
6	98	110	325	1520	396	659	229	88	309	149	410	197
7	184	341	212	590	251	410	219	51	127	45	1060	1160
8	84	106	225	552	194	234	1040	569	135	33	1640	1920
9	36	19	91	202	106	63	225	55	142	19	1640	1750
10	56	25	69	119	78	23	268	68	160	13	1150	1090
11	78	35	55	62	70	12	322	115	175	16	425	293
12	71	31	47	21	76	12	492	328	1690	1230	212	107
13	101	66	54	26	70	6.6	517	343	3460	4590	166	74
14	96	92	45	16	73	3.0	529	387	1350	3160	117	44
15	62	51	57	22	83	5.8	460	204	267	570	109	28
16	91	121	160	83	261	237	574	265	251	248	148	33
17	98	190	71	19	119	98	419	135	501	437	101	22
18	74	140	70	10	116	92	374	96	710	380	733	224
19	54	96	106	10	125	128	317	68	1850	559	513	235
20	56	94	135	25	200	275	174	31	1290	352	180	79
21	60	83	151	83	226	402	118	19	37100	111000	93	34
22	62	90	145	152	293	550	112	18	9500	6590	82	4.4
23	80	135	105	124	174	312	235	51	2240	1640	78	4.2
24	63	95	112	184	134	231	1260	927	1750	1300	197	14
25	58	74	87	139	157	284	1450	1670	2800	4830	226	14
26	53	53	56	57	258	536	1260	1720	2050	2930	190	14
27	57	51	45	19	347	599	4590	14500	1200	1430	135	7.7
28	57	23	52	17	220	364	10800	24000	750	735	68	2.0
29	61	50	61	35	218	390	2500	4120	12300	10600	110	1.1
30	62	72	60	40	1100	2250	1000	1540	337	155	197	8.0
31	---	---	61	50	---	---	451	688	335	127	---	---
TOTAL	---	2283.3	---	16093	---	22723.4	---	119562	---	155623	---	7559.4

TOTAL LOAD FOR YEAR: 393772.7 TONS.

08330600 TIJERAS ARROYO NEAR ALBUQUERQUE, NM

LOCATION.--Lat 35°00'04", long 106°39'18", in SW¼SW¼ sec. 17, T.9 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on right bank 875 ft (267 m) downstream from highway bridge on Broadway Boulevard SE, 1,760 ft (536 m) upstream from South Diversion Channel, 0.5 mi (0.8 km) downstream from highway bridge on Interstate Highway 25, and 3 mi (5 km) south of Albuquerque.

DRAINAGE AREA.--133 mi^2 (344 km^2).

PERIOD OF RECORD.--October 1951 to September 1968, (annual maximum only), August 1974 to current year (no winter records.

GAGE.--Water-stage recorder and concrete lined channel. Altitude of gage is 4,961 ft (1,512 m), from Corps of Engineers plan and profile map.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,530 ft^3/s (71.6 m^3/s) June 24, 1967, (gage height not determined); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 370 ft^3/s (10.5 m^3/s) Aug. 11, gage height, 1.60 ft (0.488 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00						---	.00	.00	2.0	16	.00
2	.00						---	.00	.00	.00	10	.00
3	.00						---	.00	.60	.00	.00	.00
4	.00						---	.00	.00	.00	.00	.00
5	.00						---	.00	.00	.00	21	.72
6	.00						---	.00	.00	.00	3.0	.00
7	.00						---	.00	.00	.00	2.0	.00
8	.00						---	.00	.00	1.2	.00	.00
9	.00						.00	.00	.00	.00	.00	.00
10	.00						.00	.00	.00	.00	.00	.00
11	.00						.00	.00	.00	.00	30	.00
12	.00						.00	.00	.00	.00	15	.00
13	.00						4.2	.00	.00	.00	7.0	.00
14	.00						.00	.00	.00	.00	2.0	.00
15	.00						.00	.00	.00	.00	.00	.00
16	.00						.00	2.2	.00	.00	.00	.00
17	.00						.00	.00	.00	.00	.00	.00
18	.00						.00	.00	.00	.00	.00	84
19	.00						.00	.00	.00	.00	.00	31
20	.00						.00	.00	.00	.00	.00	25
21	.00						.00	.00	.00	.00	.00	2.5
22	.00						.00	.00	.00	.00	.00	.00
23	.00						.00	.00	.00	.00	.00	1.4
24	.00						.00	.00	.00	.00	.00	.00
25	.00						.00	.00	.00	.00	.00	.00
26	.00						.00	.00	.00	.00	.00	.00
27	.00						.00	.00	.00	.00	.00	.00
28	---						.00	.00	.00	.00	.00	.00
29	---						.00	.00	.00	16	.00	.00
30	---						.00	.00	.00	22	.00	.00
31	---						---	.00	---	5.0	.00	---
TOTAL	---						---	2.20	.60	46.20	106.00	144.62
MEAN	---						---	.071	.020	1.49	3.42	4.82
MAX	---						---	2.2	.60	22	30	84
MIN	---						---	.00	.00	.00	.00	.00
AC-FT	---						---	4.4	1.2	92	210	287

08330800 TIJERAS ARROYO BELOW SOUTH DIVERSION CHANNEL INLET NEAR ALBUQUERQUE, NM

LOCATION.--Lat 35°00'09", long 106°39'41", in SW¼SE¼ sec. 18, T.9 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on left bank 260 ft (79 m) upstream from highway bridge on State Highway 47, 500 ft (152 m) downstream from South Diversion Channel inlet, 1.0 mi (1.6 km) downstream from highway bridge on Interstate Highway 27 and 2.5 mi (4.0 km) south of Albuquerque.

PERIOD OF RECORD.--July 1974 to current year (no winter records).

GAGE.--Water-stage recorder and concrete lined channel. Altitude of gage is 4,933 ft (1,504 m), from Corps of Engineers plan and profile map.

REMARKS.--Records fair. South Diversion Channel intercepts flow of numerous arroyos in northeast and southeast Albuquerque and discharges into Tijeras Arroyo at a point 0.8 mi (1.3 km) upstream from the Rio Grande.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,450 ft^3/s (41.1 m^3/s) Aug. 19, 1976, gage height, (not determined); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 475 ft^3/s (13.5 m^3/s) Aug. 11, gage height, 1.95 ft (0.594 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00						---	.00	.00	5.2	18	.00
2	.00						---	.00	.00	2.2	15	.00
3	.00						---	.00	.83	.00	.00	.00
4	.00						---	.00	.00	.00	.00	.00
5	.00						---	.00	.00	.00	30	.83
6	.00						---	.00	.00	.00	5.0	.00
7	.00						---	.00	.00	.00	2.0	.00
8	.00						---	.00	.00	1.4	.00	.00
9	.00						---	.00	.00	.00	.00	.00
10	.00						---	.00	.00	.00	.00	.00
11	.00						---	.00	.00	.00	33	.00
12	.00						---	.00	.00	.00	19	.00
13	.00						---	.00	.00	.00	10	.00
14	.00						---	.00	.00	.00	5.0	.00
15	.00						---	.00	.00	.00	.00	.00
16	.00						---	3.0	.00	.00	.00	.00
17	.00						---	.00	.00	.00	.00	.00
18	.00						---	.00	.00	.00	.00	90
19	.00						---	.00	.00	.00	.00	35
20	.00						---	.00	.00	.00	.00	27
21	.00						---	.00	.00	.00	.00	3.0
22	.00						---	.00	.00	.00	.00	.00
23	.00						.00	.00	.00	.00	.00	2.0
24	.00						.00	.00	.00	.00	.00	.00
25	.00						.00	.00	.00	.00	.00	.00
26	.00						.00	.00	.00	.00	.00	.00
27	.00						.00	.00	.00	.00	.00	.00
28	---						.00	.00	.00	.00	.00	.00
29	---						.00	.00	.00	18	.00	.00
30	---						.00	.00	.00	42	.00	.00
31	---						---	.00	---	10	.00	---
TOTAL	---						---	3.00	.83	78.80	137.00	157.83
MEAN	---						---	.097	.028	2.54	4.42	5.26
MAX	---						---	3.0	.83	42	33	90
MIN	---						---	.00	.00	.00	.00	.00
AC-FT	---						---	6.0	1.6	156	272	313

08331000 RIO GRANDE AT ISLETA, NM
(Surveillance station)

LOCATION.--Lat 34°54'21", long 106°41'04", in NE¼NE¼SW¼ sec.24, T. 08 N., R. 02 E., Valencia County, Hydrologic Unit 13020203, 50 feet (15 m) upstream from diversion dam, 50 feet (15 m) downstream from bridge on State Highway 147, at Isleta.

DRAINAGE AREA.--18,100 mi^2 (46,900 km^2) (estimated).

PERIOD OF RECORD.--Water years 1972 to current year.

REMARKS.--Samples are collected on the Peralta main canal or the Belen Highline canal when the river is completely diverted. Water-discharge measurements were made at the time water-quality samples were collected.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
NOV											
12...	1412	1400	421	8.0	19.0	13.0	8.3	25	140	22	--
DEC											
19...	1200	1490	390	7.9	4.5	6.5	10.0	--	--	--	--
JAN											
23...	1045	640	435	7.6	9.0	5.0	9.6	16	150	32	--
FEB											
18...	1300	800	410	8.1	20.0	11.0	8.7	--	--	--	--
MAR											
20...	1200	535	470	8.2	14.0	9.5	8.6	34	150	--	34
APR											
16...	0945	392	545	8.0	18.0	15.0	6.2	--	--	--	--
MAY											
20...	1600	166	525	8.0	27.0	19.0	8.5	18	170	--	35
JUN											
19...	1345	462	525	8.0	33.0	24.0	8.5	--	--	--	--
JUL											
14...	1345	466	575	7.9	32.0	27.0	5.8	53	180	--	64
AUG											
27...	1400	501	480	7.9	30.0	25.0	5.4	--	--	--	--
SEP											
15...	1520	134	575	7.9	31.0	24.5	6.2	33	180	--	30

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
NOV											
12...	45	7.3	27	1.0	4.0	120	69	10	.5	20	256
DEC											
19...	--	--	--	--	--	--	--	--	--	--	--
JAN											
23...	48	7.8	37	1.3	3.8	--	79	17	.4	23	290
FEB											
18...	--	--	--	--	--	--	--	--	--	--	--
MAR											
20...	49	7.7	40	1.4	4.5	120	74	22	.5	24	296
APR											
16...	--	--	--	--	--	--	--	--	--	--	--
MAY											
20...	55	9.1	40	1.3	5.2	140	95	25	.5	25	344
JUN											
19...	--	--	--	--	--	--	--	--	--	--	--
JUL											
14...	58	9.5	42	1.3	5.6	120	120	24	.4	23	357
AUG											
27...	--	--	--	--	--	--	--	--	--	--	--
SEP											
15...	57	9.2	45	1.5	6.3	150	90	22	.5	29	351

08331000 RIO GRANDE AT ISLETA, NM
(Surveillance station)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV											
12...	--	.25	.25	.500	.60	1.4	.430	.230	100	10	7.8
DEC											
19...	--	--	--	--	--	--	--	--	--	--	--
JAN											
23...	--	.32	.30	1.60	.50	2.4	.750	.730	80	<10	7.2
FEB											
18...	--	--	--	--	--	--	--	--	--	--	--
MAR											
20...	--	.44	.43	1.30	.70	2.4	.930	.760	110	20	7.7
APR											
16...	--	--	--	--	--	--	--	--	--	--	--
MAY											
20...	.090	1.3	1.1	.040	1.6	2.9	.880	.770	130	<10	16
JUN											
19...	--	--	--	--	--	--	--	--	--	--	--
JUL											
14...	--	.53	.53	1.60	.90	3.0	1.40	.750	310	30	8.0
AUG											
27...	--	--	--	--	--	--	--	--	--	--	--
SEP											
15...	--	.46	.46	1.50	.50	2.5	1.30	1.00	120	<10	5.0

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)
NOV										
12...	1412	5	7	100	1	<1	10	0	31	4
MAY										
20...	1600	6	5	130	0	<1	10	0	7	1

DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV									
12...	10	14	3	.1	.2	0	0	40	10
MAY									
20...	<10	6	1	.1	.0	0	0	0	<3

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITROGEN,TOT IN BOTTOM MATERIAL (MG/KG AS N) (00603)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)
MAY								
20...	1600	2.3	1.6	29	280	0	0	2

DATE	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
MAY							
20...	0	5	380	10	75	.01	1

08331000 RIO GRANDE AT ISLETA, NM
(Surveillance station)

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
MAY									
20...	1600	<9.0	1.8	8.6	2.3	8.2	2.2	.06	3.8

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-AZINON, TOTAL (UG/L) (39570)	DI-ELDRIN TOTAL (UG/L) (39380)
MAY									
20...	1600	--	--	--	--	--	--	--	--
SEP									
15...	1520	.00	.00	.00	.00	.00	.00	.08	.01

DATE	ENDO-SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METHYL PARA-THION, TOTAL (UG/L) (39600)
MAY									
20...	--	--	--	--	--	--	--	--	--
SEP									
15...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL TRI-THION, TOTAL (UG/L) (39790)	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PER-THANE TOTAL (UG/L) (39034)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
MAY									
20...	--	--	--	--	.00	.00	--	--	--
SEP									
15...	.00	.00	0	.00	--	--	.00	.00	.00

08331000 RIO GRANDE AT ISLETA, NM
(Surveillance station)

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV			
12...	1412	250	550
DEC			
19...	1200	21	40
JAN			
23...	1045	2	16
FEB			
18...	1300	6	22
MAR			
20...	1200	67	260
APR			
16...	0945	67	510
MAY			
20...	1600	215	210
JUN			
19...	1345	360	270
JUL			
14...	1345	1500	640
AUG			
27...	1400	2300	450
SEP			
15...	1520	700	390

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
14...	1514	213	19.5	49	28	81
NOV						
12...	1412	1400	13.0	2910	11000	9
JAN						
23...	1045	640	5.0	88	152	33
MAR						
20...	1200	535	9.5	36	52	98
MAY						
20...	1600	166	19.0	79	35	67
JUL						
14...	1345	466	27.0	428	539	97
SEP						
15...	1520	134	24.5	80	29	95

08331990 RIO GRANDE CONVEYANCE CHANNEL NEAR BERNARDO, NM

LOCATION.--Lat 34°24'52", long 106°48'11", Socorro County, Hydrologic Unit 13020203, 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", are not equivalent.

GAGE.--Water-stage recorder with concrete control. Datum of gage is 4,720.00 ft (1,438.656 m) National Geodetic Vertical Datum of 1929. Prior to October 1964, 0.2 mi (0.3 km) upstream at various datums.

REMARKS.--Records good. Conveyance channel is 1 of 4 channels (stations 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 (57 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 station 08332010. Several observations of water temperature were made during the year.

EXTREMES FOR 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.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	4.1	9.2	11	9.2	6.7	5.2	3.8	.58	.00	.00	.00
2	2.5	4.0	9.2	11	9.2	7.3	4.8	4.5	.15	.00	.00	.00
3	2.5	4.1	9.2	11	9.2	8.3	4.9	4.5	.00	.00	.00	.00
4	2.5	4.2	8.5	11	9.2	8.0	4.8	4.1	.00	.00	.00	.00
5	2.5	4.5	8.9	11	9.2	7.5	4.5	4.5	.00	.00	.00	.00
6	1.6	5.0	9.2	11	9.2	7.1	4.5	5.3	.00	.00	.00	.00
7	2.5	6.1	9.2	11	9.0	7.1	4.8	4.9	.00	.00	1.0	.00
8	2.2	7.8	9.2	9.8	8.8	7.1	6.4	5.2	.00	.00	.00	.00
9	2.3	7.3	9.2	8.8	9.1	7.5	5.7	5.4	.00	.00	.00	.03
10	2.6	7.4	9.2	8.5	8.7	18	4.8	5.8	.00	.00	.00	.03
11	2.3	7.1	9.2	8.5	8.8	8.2	4.4	5.6	.00	.00	.00	.03
12	2.5	7.6	8.6	8.5	8.5	8.9	4.1	6.6	.00	.00	.00	.03
13	2.5	8.4	8.5	8.5	7.8	9.1	4.3	7.1	.00	.00	.00	.03
14	2.6	8.5	8.5	8.5	7.8	8.2	4.4	5.6	.00	.00	.00	.03
15	3.0	9.2	8.5	8.5	7.8	6.9	4.1	5.1	.00	.00	.00	.03
16	3.0	8.5	8.5	8.0	8.1	6.5	4.1	4.8	.00	.00	.00	.03
17	3.8	8.5	9.5	7.8	8.5	7.1	4.1	4.7	.00	.00	.00	.03
18	3.1	8.5	9.9	10	8.5	6.9	4.7	4.4	.00	.00	.00	.03
19	3.4	8.5	9.9	10	8.5	6.5	4.1	4.3	.00	.00	.00	.03
20	4.0	8.5	9.9	9.9	8.5	6.5	4.5	3.9	.00	.00	.00	.03
21	3.4	8.5	9.9	9.9	7.9	6.4	5.1	3.7	.00	.00	.00	.03
22	3.4	8.6	9.9	9.9	7.8	6.7	5.3	2.9	.00	.00	.00	.03
23	3.3	9.2	9.9	9.9	7.8	6.7	5.3	2.6	.00	.00	.00	.03
24	3.1	8.7	9.9	9.9	8.1	6.3	6.5	2.6	.00	.00	.00	.03
25	3.3	8.5	9.9	9.9	8.2	5.9	6.5	2.6	.00	.00	.00	.03
26	3.0	8.5	9.9	9.9	7.1	5.9	5.3	2.1	.00	.00	.00	.03
27	3.2	11	9.9	9.9	7.1	5.8	4.9	2.0	.00	.00	.00	.03
28	3.4	9.3	9.9	9.9	6.9	5.7	5.3	2.0	.00	.00	.00	.03
29	3.4	9.2	9.9	9.5	---	5.9	4.5	1.7	.00	.00	.00	.00
30	3.7	9.2	9.9	9.1	---	6.4	3.8	.99	.00	.00	.00	.00
31	3.7	---	9.9	9.2	---	5.4	---	.81	---	.00	.00	---
TOTAL	90.8	228.5	290.9	299.3	234.5	226.5	145.7	124.10	.73	.00	1.00	.60
MEAN	2.93	7.62	9.38	9.65	8.38	7.31	4.86	4.00	.024	.000	.032	.020
MAX	4.0	11	9.9	11	9.2	18	6.5	7.1	.58	.00	1.0	.03
MIN	1.6	4.0	8.5	7.8	6.9	5.4	3.8	.81	.00	.00	.00	.00
AC-FT	180	453	577	594	465	449	289	246	1.4	.00	2.0	1.2

CAL YR 1980 TOTAL 3508.90 MEAN 9.59 MAX 25 MIN 1.6 AC-FT 6960
WTR YR 1981 TOTAL 1642.63 MEAN 4.50 MAX 18 MIN .00 AC-FT 3260

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM

LOCATION.--Lat 34°25'01", long 106°48'00", Socorro County, Hydrologic Unit 13020203, 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 mi^2 (49,810 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

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) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records poor. Since November 1973 flow completely regulated by Cochiti Dam (station 08317300) 100 mi (161 km) upstream. Floodway is 1 of 4 channels (stations 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. Diversions for irrigation of about 740,000 acres (3,000 km^2) above station.

AVERAGE DISCHARGE.--19 years (water years 1937-38, 1942-58), 1,125 ft^3/s (31.86 m^3/s), 815,100 acre-ft/yr (1,000 hm^3/yr). Includes flow of floodway, conveyance channel, and Bernardo interior drain.

15 years (water years 1959-73) 898 ft^3/s (25.43 m^3/s), 605,600 acre-ft/yr (747 hm^3/yr), includes flow of floodway, conveyance channel, Bernardo interior drain, and lower San Juan Riverside drain prior to closure of Cochiti Dam.

8 years (water years 1974-81) 1,094 ft^3/s (30.98 m^3/s), 792,600 acre-ft/yr (977 hm^3/yr), includes flow of floodway, conveyance channel, Bernardo interior drain, and lower San Juan Riverside drain since closure of Cochiti Dam.

EXTREMES FOR PERIOD OF RECORD (1936-39 AND SINCE 1941).--Maximum discharge, 21,000 ft^3/s (595 m^3/s) Apr. 25, 1942, gage height, 6.90 ft (2.103 m); no flow for many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,800 ft^3/s (51.0 m^3/s) Dec. 9, Jan. 1; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	144	1560	1800	611	697	82	22	.00	.00	.00	59
2	.00	80	1570	1690	628	1150	49	24	.00	.00	.00	44
3	.00	122	1610	1590	645	1060	28	23	.00	46	.00	36
4	.00	266	1640	1460	670	921	37	10	.00	163	.00	18
5	.00	635	1630	1350	672	488	14	.00	.00	151	.00	30
6	.00	1230	1640	1300	659	560	12	318	.00	38	.00	70
7	.00	1250	1600	1310	616	579	7.7	768	.00	.00	.00	46
8	2.0	1300	1680	1300	587	460	16	469	.00	.00	.00	79
9	29	1290	1800	1220	630	476	4.4	257	.00	.00	.00	271
10	50	1240	1690	1080	723	387	.00	174	.00	.00	.00	231
11	43	1160	1600	940	800	350	.00	110	.00	.00	.00	239
12	46	1300	1450	860	491	343	.00	57	.00	.00	.00	137
13	43	1430	1500	800	397	274	.00	22	.00	.00	.00	53
14	42	1420	1470	771	344	190	.00	.00	.00	.00	.00	45
15	34	1430	1480	728	696	170	.00	.00	.00	.00	.00	19
16	25	1480	1390	762	934	542	.00	.00	.00	.00	.00	43
17	36	1450	1450	786	973	668	.00	.00	.00	.00	.00	3.9
18	16	1570	1520	861	974	437	.00	.00	.00	.00	25	20
19	3.9	1590	1570	879	804	372	.00	.00	.00	.00	.00	20
20	11	1570	1670	876	441	285	12	.00	.00	.00	.00	16
21	.00	1520	1630	749	341	257	77	.00	.00	.00	.00	8.2
22	.00	1570	1480	575	557	285	166	.00	.00	.00	2.6	.00
23	.00	1540	1450	617	777	297	131	.00	.00	.00	3.2	4.6
24	.00	1590	1420	694	822	268	135	.00	.00	.00	.00	13
25	.00	1640	1410	765	559	194	138	.00	.00	.00	.00	.00
26	.00	1550	1330	775	407	155	99	.00	.00	.00	.00	.00
27	.00	1520	1350	689	308	82	71	.00	.00	.00	.00	.00
28	.00	1500	1500	674	271	111	49	.00	.00	.00	68	.00
29	.00	1550	1550	717	---	148	33	.00	.00	.00	73	.00
30	.00	1600	1550	738	---	178	18	.00	.00	.00	91	.00
31	27	---	1600	709	---	181	---	.00	---	.00	94	---
TOTAL	407.90	37537	47790	30065	17337	12565	1179.10	2254.00	.00	398.00	356.80	1505.70
MEAN	13.2	1251	1542	970	619	405	39.3	72.7	.000	12.8	11.5	50.2
MAX	50	1640	1800	1800	974	1150	166	768	.00	163	94	271
MIN	.00	80	1330	575	271	82	.00	.00	.00	.00	.00	.00
AC-FT	809	74450	94790	59630	34390	24920	2340	4470	.00	789	708	2990
(†)	13650	80240	100600	65370	39920	34090	12980	16830	7500	10530	10480	15230

CAL YR 1980 TOTAL 622843.90 MEAN 1702 MAX 7260 MIN .00 AC-FT 1235000 (†) MEAN 1861 AC-FT 1351000
WTR YR 1981 TOTAL 151395.50 MEAN 415 MAX 1800 MIN .00 AC-FT 300300 (†) MEAN 563 AC-FT 407400

(†) COMBINED FLOW IN ACRE-FT AND MEAN, IN CUBIC FEET PER SECOND, OF FLOODWAY, CONVEYANCE CHANNEL, BERNARDO INTERIOR DRAIN AND LOWER SAN JUAN RIVERSIDE DRAIN.

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1956 to current year.
WATER TEMPERATURES: October 1964 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1964 to current year.
REMARKS.--Additional sediment total discharge determinations were made bi-weekly when needed. Records prior to 1965 water year were published as 08332000 Rio Grande near Bernardo, N. Mex., a composite of 08331990 Rio Grande Conveyance Channel near Bernardo, 08332010 Rio Grande Floodway near Bernardo, and 08332050 Bernardo Interior Drain at Bernardo.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (Water Years 1964 to 1979): Maximum daily, 1,410 micromhos July 23, 1976; minimum daily, 224 micromhos June 5, 1980.
WATER TEMPERATURES: Maximum, 34.5°C Aug. 9, 1975; minimum, 0.0°C on several days during 1971, 1972, 1976, 1977 and 1979.
SEDIMENT CONCENTRATIONS (Water Years 1975-1981): Maximum daily, 21,400 mg/L Aug. 11, 1979; minimum daily, no flow on many days each year
SEDIMENT LOADS: Maximum daily, 356,000 tons (323,000 tonnes) Aug. 11, 1967; minimum daily, 0 tons (0 tonnes) on many days each year.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,070 micromhos May 4; minimum daily, 430 micromhos Dec. 16.
WATER TEMPERATURES: Maximum, 30.0°C Aug. 23, 30; minimum, 1.0°C, Dec. 14, 21, Feb. 14.
SEDIMENT CONCENTRATIONS: Maximum daily, 7,390 mg/L Aug. 28; minimum daily, no flow on many days.
SEDIMENT LOADS: Maximum daily, 3,880 tons (3,520 tonnes) Sept. 9; minimum daily, 0 tons (0 tonnes) on many days.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
NOV											
05...	1100	585	608	7.9	--	11.0	45	190	21	--	60
DEC											
16...	1000	1440	430	8.1	7.0	5.0	--	--	--	--	--
JAN											
22...	1315	546	500	8.2	7.0	6.5	--	--	--	--	--
FEB											
20...	1330	422	500	8.4	24.0	14.0	--	170	32	--	54
MAR											
16...	1030	570	590	8.4	11.0	14.0	--	--	--	--	--
SEP											
16...	0945	114	725	8.2	17.5	13.0	--	380	--	270	130

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
NOV											
05...	10	49	1.5	6.3	170	--	100	22	.4	27	381
DEC											
16...	--	--	--	--	--	--	--	--	--	--	--
JAN											
22...	--	--	--	--	--	--	--	--	--	--	--
FEB											
20...	9.1	44	1.5	4.3	--	140	110	17	.4	26	349
MAR											
16...	--	--	--	--	--	--	--	--	--	--	--
SEP											
16...	14	17	.4	3.0	--	110	310	6.6	.3	11	558

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV										
05...	.97	.96	.240	6.1	7.3	.650	.590	100	<10	8.5
DEC										
16...	--	--	--	--	--	--	--	--	--	--
JAN										
22...	--	--	--	--	--	--	--	--	--	--
FEB										
20...	--	--	--	--	--	--	--	90	20	--
MAR										
16...	--	--	--	--	--	--	--	--	--	--
SEP										
16...	--	--	--	--	--	--	--	30	<10	--

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	DI-AZINON, TOTAL (UG/L) (39570)	ETHION, TOTAL (UG/L) (39398)	MALA-THION, TOTAL (UG/L) (39530)	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL TRI-THION, TOTAL (UG/L) (39790)	PARA-THION, TOTAL (UG/L) (39540)	TOTAL TRI-THION (UG/L) (39786)
SEP								
16...	0945	.00	.00	.00	.00	.00	.00	.00

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .008 MM (70339)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .031 MM (70341)
NOV										
05...	1100	585	11.0	567	896	39	62	--	86	--
13...	1100	2030	13.0	476	2610	36	46	--	64	--
JAN										
09...	1030	1420	5.0	229	878	24	26	31	34	40
FEB										
05...	1400	671	14.5	200	362	--	--	--	--	--
MAR										
16...	1030	570	14.0	378	582	24	27	32	40	47
MAY										
06...	1830	816	18.0	814	1790	50	63	--	87	--
JUL										
05...	1000	160	23.0	7710	3330	71	88	--	99	--
AUG										
23...	1600	.10	30.0	3900	1.1	71	90	--	99	--
28...	1230	138	25.0	10100	3760	54	72	--	97	--
31...	1800	44	25.0	4630	550	67	83	--	95	--
SEP										
13...	1000	49	18.0	547	72	71	87	--	95	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM (70336)
NOV									
05...	--	--	--	99	100	--	--	--	--
13...	--	--	--	94	98	100	--	--	--
JAN									
09...	--	--	--	54	78	90	94	97	100
FEB									
05...	--	--	--	38	67	93	99	100	--
MAR									
16...	63	84	100	--	--	--	--	--	--
MAY									
06...	--	--	--	99	100	--	--	--	--
JUL									
05...	100	--	--	--	--	--	--	--	--
AUG									
23...	100	--	--	--	--	--	--	--	--
28...	--	--	--	99	100	--	--	--	--
31...	--	--	--	99	100	--	--	--	--
SEP									
13...	--	--	--	99	100	--	--	--	--

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)
NOV									
05...	1100	585	567	896	3	7	64	100	--
13...	1100	2030	476	2610	24	76	100	--	--
JAN									
09...	1030	1420	229	878	45	88	100	--	--
22...	1315	546	--	--	1	3	67	95	100
FEB									
05...	1400	671	200	362	15	83	100	--	--
MAR									
16...	1030	570	378	582	1	5	51	95	100

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

TOTAL SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SEDI-MENT, DISCH, SUSP. + BED MA-TERIAL (T/DAY) (80156)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOC-ITY, MEAN (FPS) (00055)
JAN									
09...	1030	1420	5.0	229	878	1190	340	1.6	2.70
FEB									
05...	1400	671	14.5	200	362	877	300	1.2	1.90
MAR									
16...	1030	570	11.0	378	582	861	184	1.6	1.90

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	785	510	501	590	631	604	1030		---	---	758
2	---	870	468	492	594	524	587	1020		---	---	751
3	---	818	484	500	597	507	663	1020		582	---	763
4	---	739	491	500	567	505	707	1070		571	---	811
5	---	660	490	468	582	529	715	691		613	---	701
6	---	568	490	484	582	529	717	649		641	---	712
7	---	549	499	499	588	536	720	559		---	---	782
8	---	548	486	496	594	554	708	610		---	---	738
9	---	540	491	506	597	552	600	560		---	---	654
10	685	540	502	526	564	552	---	585		---	---	684
11	708	543	505	542	565	588	---	584		---	---	721
12	699	484	509	564	641	609	---	656		---	---	764
13	746	510	515	571	645	604	---	628		---	---	792
14	752	520	513	573	645	617	---	702		---	---	787
15	754	523	514	573	648	623	---	---		---	---	---
16	655	524	509	566	622	604	---	---		---	---	725
17	718	527	505	557	620	586	---	---		---	---	---
18	730	518	502	526	557	571	---	---		---	---	---
19	740	530	502	552	552	572	---	---		---	---	---
20	785	523	497	555	603	610	644	---		---	---	---
21	797	522	500	601	610	615	617	---		---	---	---
22	---	516	485	600	631	615	730	---		---	---	---
23	---	515	489	607	639	622	773	---		---	974	---
24	---	508	490	598	512	618	758	---		---	---	---
25	---	508	494	601	565	673	760	---		---	---	755
26	---	508	494	592	610	670	818	---		---	---	---
27	---	510	496	593	621	608	881	---		---	---	---
28	---	505	500	591	626	574	891	---		---	739	---
29	---	507	507	593	---	617	958	---		---	680	---
30	---	507	504	596	---	563	1040	---		---	724	---
31	---	---	507	590	---	563	---	---		---	765	---
MEAN	731	564	498	552	599	585	745	740		602	776	744

WTR YR 1981 MEAN 615 MAX 1070 MIN 468

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

TEMPERATURE, WATER (DEG.°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	7.0	8.0	7.0	2.0	11.0	14.0	20.0		---	---	28.0
2	---	5.0	8.0	9.0	4.0	9.0	13.0	24.0		---	---	29.0
3	---	11.0	10.0	6.0	4.5	7.0	12.0	20.0		22.0	---	27.0
4	---	11.0	9.0	6.0	5.0	6.0	4.0	23.0		21.0	---	26.0
5	---	13.0	7.0	6.0	7.0	7.0	15.0	15.0		23.0	---	20.0
6	---	11.0	9.0	5.0	7.0	7.0	13.0	18.0		28.0	---	24.5
7	---	12.0	7.0	5.0	4.0	7.0	16.5	19.0		---	---	22.0
8	---	8.0	4.0	6.0	2.0	7.5	17.0	18.0		---	---	19.0
9	---	8.0	5.0	7.0	6.0	8.0	18.0	17.0		---	---	25.0
10	23.0	8.0	5.0	5.0	3.0	8.0	---	12.0		---	---	26.0
11	9.0	9.0	5.0	2.0	4.0	9.0	---	19.0		---	---	26.0
12	18.0	13.0	3.0	6.0	7.0	9.0	---	21.0		---	---	19.0
13	18.0	11.0	4.0	6.0	10.0	12.0	---	23.0		---	---	18.0
14	16.0	4.0	1.0	6.0	1.0	6.0	---	19.0		---	---	26.0
15	12.0	6.0	4.0	6.0	5.0	9.0	---	---		---	---	---
16	12.0	3.0	5.0	3.0	4.0	9.0	---	---		---	---	13.0
17	13.0	7.0	5.0	4.0	9.0	9.0	---	---		---	---	---
18	14.0	8.0	6.0	2.0	14.0	8.0	---	---		---	---	---
19	15.0	8.5	5.0	3.0	10.0	8.5	---	---		---	---	---
20	13.0	7.0	3.0	4.0	11.0	9.0	16.0	---		---	---	---
21	14.0	6.0	1.0	4.0	6.0	6.0	18.0	---		---	---	---
22	---	4.0	3.0	8.0	1.5	13.0	18.0	---		---	---	---
23	---	6.0	5.0	9.0	8.0	13.0	19.0	---		---	30.0	---
24	---	3.5	6.0	2.0	9.0	12.0	20.0	---		---	---	---
25	---	3.0	5.0	7.0	10.0	13.0	24.0	---		---	---	25.0
26	---	6.0	7.0	5.0	10.0	14.0	19.0	---		---	---	---
27	---	3.0	7.0	6.0	11.0	15.0	22.0	---		---	---	---
28	---	4.0	2.0	6.0	12.0	4.0	21.0	---		---	25.0	---
29	---	8.0	7.0	7.0	---	11.0	22.0	---		---	23.0	---
30	---	5.0	5.0	7.0	---	13.0	21.0	---		---	30.0	---
31	---	---	4.5	3.0	---	14.0	---	---		---	25.0	---
MEAN	15.0	7.5	5.5	5.5	6.5	9.5	17.0	19.0		23.5	26.5	23.5

WTR YR 1981 MEAN 11.0 MAX 30.0 MIN 1.0
NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	0	.00	252	98	213	1010	231	1120	68	112	40	75
2	0	.00	93	20	251	1200	263	1200	54	92	91	283
3	0	.00	140	46	240	1210	145	622	50	87	163	467
4	0	.00	275	198	211	1020	139	548	53	96	138	343
5	0	.00	630	1080	295	1420	128	518	117	212	104	137
6	0	.00	1080	3590	252	1220	134	521	85	151	102	154
7	0	.00	881	3450	280	1400	127	501	71	118	103	161
8	13	.32	773	3380	278	1560	137	547	55	87	108	134
9	78	6.1	590	2770	332	1810	168	553	44	75	110	141
10	87	12	410	1930	241	1100	142	414	131	256	94	98
11	86	10	360	1610	278	1260	116	326	146	315	88	83
12	83	10	401	2000	252	1160	95	231	58	77	108	100
13	55	6.4	438	2400	188	888	102	241	42	45	107	79
14	52	5.9	367	2100	185	809	77	160	46	43	105	54
15	91	8.4	398	2290	213	851	94	185	55	103	109	50
16	82	5.5	405	2270	178	668	96	198	123	310	231	338
17	67	6.5	410	1990	199	779	90	191	128	336	176	317
18	44	1.9	415	1760	190	780	86	200	100	263	114	135
19	11	.47	409	1760	195	827	94	223	108	234	124	125
20	29	1.3	392	1770	175	789	99	234	61	73	90	69
21	0	.00	340	1580	196	863	78	158	51	47	95	66
22	0	.00	333	1640	159	635	65	101	98	147	82	63
23	0	.00	401	2050	182	713	74	123	108	227	61	49
24	0	.00	361	1840	169	648	72	135	58	129	65	47
25	0	.00	330	1770	209	796	107	221	41	62	66	35
26	0	.00	445	2280	180	646	87	182	40	44	82	34
27	0	.00	411	2020	195	711	87	162	40	33	87	19
28	0	.00	320	1420	202	818	63	115	36	26	66	20
29	0	.00	297	1360	203	850	57	110	---	---	87	35
30	0	.00	210	981	176	737	62	124	---	---	62	30
31	185	15	---	---	184	795	65	124	---	---	65	32
TOTAL	---	89.79	---	53453	---	29973	---	10288	---	3800	---	3773

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	51	11	32	1.9	0	.00	0	.00	0	.00	2270	362
2	55	7.3	30	1.9	0	.00	0	.00	0	.00	1150	137
3	49	3.7	37	2.3	0	.00	4670	742	0	.00	650	63
4	52	5.2	38	1.0	0	.00	5320	2340	0	.00	470	23
5	47	1.8	0	.00	0	.00	6380	2600	0	.00	1500	121
6	48	1.6	423	695	0	.00	1910	324	0	.00	1490	282
7	14	.79	398	825	0	.00	0	.00	0	.00	875	109
8	46	2.0	191	242	0	.00	0	.00	0	.00	1150	245
9	12	.31	168	117	0	.00	0	.00	0	.00	5300	3880
10	0	.00	123	58	0	.00	0	.00	0	.00	4300	2680
11	0	.00	102	30	0	.00	0	.00	0	.00	3700	2390
12	0	.00	88	14	0	.00	0	.00	0	.00	1740	644
13	0	.00	53	4.3	0	.00	0	.00	0	.00	591	85
14	0	.00	0	.00	0	.00	0	.00	0	.00	420	51
15	0	.00	0	.00	0	.00	0	.00	0	.00	300	15
16	0	.00	0	.00	0	.00	0	.00	0	.00	2750	442
17	0	.00	0	.00	0	.00	0	.00	0	.00	520	28
18	0	.00	0	.00	0	.00	0	.00	4480	1160	1500	81
19	0	.00	0	.00	0	.00	0	.00	0	.00	1050	57
20	39	2.8	0	.00	0	.00	0	.00	0	.00	800	35
21	60	12	0	.00	0	.00	0	.00	0	.00	413	14
22	70	31	0	.00	0	.00	0	.00	1060	61	0	.00
23	56	20	0	.00	0	.00	0	.00	1570	66	628	31
24	52	19	0	.00	0	.00	0	.00	0	.00	1460	69
25	49	18	0	.00	0	.00	0	.00	0	.00	0	.00
26	45	12	0	.00	0	.00	0	.00	0	.00	0	.00
27	46	8.8	0	.00	0	.00	0	.00	0	.00	0	.00
28	42	5.6	0	.00	0	.00	0	.00	7390	2040	0	.00
29	37	3.3	0	.00	0	.00	0	.00	4400	867	0	.00
30	33	1.6	0	.00	0	.00	0	.00	3500	860	0	.00
31	---	---	0	.00	---	---	0	.00	5500	1400	---	---
TOTAL	---	167.80	---	1992.40	---	0.00	---	6006.00	---	6454.00	---	11844.00

TOTAL LOAD FOR YEAR: 127840.99 TONS.

08332050 BERNARDO INTERIOR DRAIN NEAR BERNARDO, NM

LOCATION.--Lat 34°24'56", long 106°49'15", Socorro County, Hydrologic Unit 13020203, on right bank 110 ft (34 m) upstream from 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. Altitude of gage is 4,714 ft (1,437 m) from topographic map. June 4, 1936 to May 17, 1937, nonrecording gage 300 ft (91 m) downstream and Oct. 1, 1943 to Jan. 12, 1978, water-stage recorder at site 150 ft (46 m) downstream at different datum.

REMARKS.--Records good. This drain is 1 of 4 channels (stations 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 station 08332010. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 187 ft^3/s (5.30 m^3/s) Aug. 7, 1970; no flow at times. Prior to 1952, drain was subject to overflow from floodway.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	30	26	24	24	22	96	23	69	114	57	101
2	72	29	25	24	24	24	86	25	59	109	67	101
3	73	28	24	24	24	23	82	26	54	93	85	116
4	72	27	24	23	24	22	78	22	73	114	66	118
5	72	27	24	23	24	36	76	86	80	103	64	124
6	84	27	25	24	25	47	76	104	93	85	68	119
7	92	27	25	24	24	42	73	130	97	78	65	117
8	103	27	25	24	23	44	88	131	82	68	63	120
9	108	27	24	24	24	38	97	130	88	84	63	120
10	109	27	22	24	23	46	80	136	76	115	63	121
11	100	28	22	24	24	54	69	138	62	104	63	123
12	106	28	22	23	23	53	58	132	53	100	68	113
13	106	28	23	24	22	54	58	111	42	102	70	104
14	104	28	24	24	22	56	71	88	38	77	70	100
15	107	28	24	24	23	55	75	82	43	78	70	101
16	100	28	25	24	23	54	85	69	39	84	70	116
17	98	28	25	25	24	38	96	70	29	69	69	110
18	93	28	25	25	24	35	96	61	28	64	69	119
19	87	28	25	26	24	37	112	56	29	55	69	123
20	96	27	26	26	23	45	110	58	30	41	69	138
21	101	27	27	25	22	47	109	56	35	36	69	119
22	106	27	27	24	22	42	52	52	33	36	66	104
23	100	27	26	24	23	51	42	72	33	31	68	104
24	98	27	26	25	23	40	44	71	37	27	68	97
25	96	26	26	25	23	43	38	70	44	32	68	135
26	96	26	26	24	22	56	42	75	48	35	68	126
27	102	25	26	24	22	97	48	83	59	28	86	114
28	102	25	26	24	21	85	40	79	70	32	135	112
29	96	26	25	24	---	88	26	59	90	31	125	102
30	82	26	25	24	---	102	18	61	117	33	102	88
31	44	---	24	24	---	80	---	70	---	33	106	---
TOTAL	2883	817	769	750	649	1556	2121	2426	1730	2091	2309	3405
MEAN	93.0	27.2	24.8	24.2	23.2	50.2	70.7	78.3	57.7	67.5	74.5	114
MAX	109	30	27	26	25	102	112	138	117	115	135	138
MIN	44	25	22	23	21	22	18	22	28	27	57	88
AC-FT	5720	1620	1530	1490	1290	3090	4210	4810	3430	4150	4580	6750

CAL YR 1980 TOTAL 19526 MEAN 53.3 MAX 144 MIN 22 AC-FT 38730
WTR YR 1981 TOTAL 21506 MEAN 58.9 MAX 138 MIN 18 AC-FT 42660

08332700 SAN PABLO CREEK NEAR CUBA, NM

LOCATION.--Lat 35°56'55", long 106°56'44", in NE¼SW¼ sec.21, T.20 N., R.1 W., Sandoval County, Hydrologic Unit 13020204, on right bank 50 ft (15 m) upstream from bridge on section of old State Highway 44, 5.6 mi (9.0 km) south of Cuba, and 8.7 mi (14.0 km) north of La Ventana.

DRAINAGE AREA.--12.8 mi^2 (33.2 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Water years 1970-78 (annual maximum only), April 1979 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,800 ft (2,073 m), from topographic map.

REMARKS.--Water-discharge records poor. Recording rain gage at station.

EXTREMES FOR PERIOD OR RECORD.--Maximum discharge, 2,360 ft^3/s (66.8 m^3/s) July 20, 1971, gage height, 9.07 ft (2.765 m) datum then in use, from slope-area measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 130 ft^3/s (3.68 m^3/s) Aug. 7, gage height, 3.89 ft (1.186 m) from rating curve extended above 20 ft^3/s (0.57 m^3/s) on basis of slope-area measurement at gage height 3.40 ft (1.036 m); no flow at times.

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE IS 07-23-82

STATION NUMBER 08332700 SAN PABLO CR NR CUBA, NM STREAM SOURCE AGENCY USGS
LATITUDE 355655 LONGITUDE 1065644 DRAINAGE AREA 12.80 DATUM STATE 35 COUNTY 043

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.25	.35	.40	.45	.35	.15	.29	.08	5.0	.60	.15
2	.08	.25	.40	.50	.40	.37	.20	.29	.06	.90	.50	.14
3	.08	.25	.40	.50	.40	.39	.20	.30	.10	.50	.40	.14
4	.08	.20	.30	.45	.42	.35	.15	.32	.09	.30	.45	.16
5	.08	.20	.30	.40	.43	.30	.12	.31	.09	.25	.60	.74
6	.08	.20	.20	.60	.44	.30	.15	.27	.03	.22	.50	.31
7	.08	.20	.22	.50	.45	.33	.20	.24	.06	.20	10	.30
8	.08	.20	.25	.45	.45	.32	.20	.24	.07	.22	.40	.30
9	.08	.20	.40	.46	.48	.28	.20	.19	.11	6.5	.35	.87
10	.08	.20	.69	.50	.50	.30	.20	.19	.11	.60	.35	.24
11	.10	.20	.61	.55	.20	.25	.20	.20	.12	.50	.36	.19
12	.10	.15	.66	.52	.22	.20	.20	.19	.12	.45	.35	.20
13	.10	.15	.48	.50	.24	.15	.15	.19	.12	.40	.35	.18
14	.12	.20	.60	.45	.26	.20	.25	.19	.12	.40	.32	.18
15	.20	.20	.60	.43	.30	.20	.23	.25	.15	.35	.33	.20
16	.15	.40	.41	.40	.30	.20	.25	.29	.19	.40	.25	1.6
17	.15	.40	.68	.45	.33	.15	.25	.18	.20	.40	.30	.39
18	.15	.40	.44	.50	.35	.20	.29	.15	.20	.45	6.0	.35
19	.15	.56	.53	.50	.40	.25	.38	.14	.20	.40	.59	.35
20	.20	.48	.55	.54	.45	.15	1.0	.15	.21	.40	.43	.34
21	.20	.95	.55	.54	.45	.25	.50	.14	.22	.40	.47	.30
22	.25	.95	.60	.55	.43	.15	.45	.14	.18	.40	.40	.30
23	.20	.62	.60	.57	.40	.20	.40	.15	.22	.40	.40	1.1
24	.20	.35	.50	.60	.40	.20	.35	.12	.23	.40	.39	.32
25	.25	.28	.53	.60	.40	.15	.30	.12	.02	.40	.30	.18
26	.23	.23	.42	.65	.40	.15	.30	.11	.14	1.2	.30	.14
27	.30	.22	.58	.70	.38	.15	.28	.10	.23	.50	.37	.13
28	.25	.21	.40	.65	.40	.15	.27	.08	.30	.45	.43	.14
29	.30	.20	.38	.60	---	.20	.28	.09	1.4	.45	.56	.34
30	.30	.20	.40	.55	---	.20	.30	.08	1.0	.40	.25	.23
31	.30	---	.40	.50	---	.15	---	.08	---	.40	.15	---
TOTAL	5.00	9.50	14.43	16.11	10.73	7.19	8.40	5.78	6.37	24.24	27.45	10.51
MEAN	.16	.32	.47	.52	.38	.23	.28	.19	.21	.78	.89	.35
MAX	.30	.95	.69	.70	.50	.39	1.0	.32	1.4	6.5	10	1.6
MIN	.08	.15	.20	.40	.20	.15	.12	.08	.02	.20	.15	.13
AC-FT	9.9	19	29	32	21	14	17	11	13	48	54	21
(†)	0.92	0.37	0.28	0.00	0.00	1.25	0.49	0.87	0.73	2.17	1.50	1.80

CAL YR 1980 TOTAL 429.99 MEAN 1.17 MAX 21 MIN .00 AC-FT 853
WTR YR 1981 TOTAL 145.71 MEAN .40 MAX 10 MIN .02 AC-FT 289

(†) RAINFALL, IN INCHES

08334000 RIO PUERCO ABOVE ARROYO CHICO, NEAR GUADALUPE, NM

LOCATION.--Lat 35°38'08", long 107°09'56", in SW¼ sec.21, T.16 N., R.3 W., Sandoval County, Hydrologic Unit 13020204, 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 mi^2 (1,090 km^2), approximately.

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

GAGE.--Water-stage recorder. Datum of gage is 5,949 ft (1,813.3 m) National Geodetic Vertical Datum of 1929. Prior to July 14, 1966 at datum 1.01 ft (0.308 m) higher.

REMARKS.--Records poor. Diversions for irrigation of about 3,700 acres (15 km^2) above station in past years, but present diversion negligible. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--30 years, 13.1 ft^3/s (0.371 m^3/s), 9,490 acre-ft/yr (11.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,940 ft^3/s (197 m^3/s) July 29, 1967, gage height, 13.53 ft (4.124 m), from rating curve extended above 1,300 ft^3/s (37 m^3/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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1943, probably exceeded 5,000 ft^3/s (140 m^3/s) based on records for stations above and below.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 902 ft^3/s (25.5 m^3/s) at 1800 hours July 1, gage height, 5.06 ft (1.542 m), no peak above base of 1,000 ft^3/s (28 m^3/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	13	1.8	174	2.0	1.8
2	.00	.00	.00	.00	.00	.00	.00	19	26	39	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	25	19	5.0	.00	22
4	.00	.00	.00	.00	.00	.00	.00	22	15	2.0	.00	2.3
5	.00	.00	.00	.00	.00	.00	.00	16	5.0	2.0	.00	64
6	.00	.00	.00	.00	.00	.00	.00	13	.00	.00	.00	45
7	.00	.00	.00	.00	.00	.00	.00	14	.00	.00	1.1	19
8	.00	.00	.00	.00	.00	.00	.00	13	.00	.00	11	21
9	.00	.00	.00	.00	.00	.00	.00	5.0	.00	39	13	8.8
10	.00	.00	.00	.00	.00	.00	.00	2.0	.00	60	1.4	2.0
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	10	5.4	.80
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	43	6.0	.40
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	14	3.2	.20
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.0	1.4	.10
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	10	.40	9.8
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	25	.00	3.4
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	10	.00	13
18	.00	.00	.00	.00	.00	.00	1.5	.00	.00	5.0	5.6	33
19	.00	.00	.00	.00	.00	.00	.25	.00	.00	2.0	13	16
20	.00	.00	.00	.00	.00	.00	.00	3.6	.00	.00	7.2	14
21	.00	.00	.00	.00	.00	.00	.00	10	.00	.00	.10	6.0
22	.00	.00	.00	.00	.00	.00	.00	2.0	.00	.00	.00	.80
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	35
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	98	19
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	36	17	11
27	.00	.00	.00	.00	.00	.00	5.7	.00	.00	24	31	6.4
28	.00	.00	.00	.00	.00	.00	9.2	.00	.00	5.0	21	.60
29	.00	.00	.00	.00	---	.00	10	.00	.00	2.0	40	.40
30	.00	.00	.00	.00	---	.00	14	.00	174	2.0	75	.20
31	.00	---	.00	.00	---	.00	---	.00	---	2.0	32	---
TOTAL	.00	.00	.00	.00	.00	.00	40.65	157.60	240.80	519.00	384.80	356.10
MEAN	.000	.000	.000	.000	.000	.000	1.36	5.08	8.03	16.7	12.4	11.9
MAX	.00	.00	.00	.00	.00	.00	14	25	174	174	98	64
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	81	313	478	1030	763	706

CAL YR 1980 TOTAL 5425.40 MEAN 14.8 MAX 158 MIN .00 AC-FT 10760
WTR YR 1981 TOTAL 1698.95 MEAN 4.65 MAX 174 MIN .00 AC-FT 3370

08334000 RIO PUERCO ABOVE ARROYO CHICO NEAR GUADALUPE, NM

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May to September 1981.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAY							
01...	1616	6.8	1350	--	35300	648	--
JUN							
04...	1450	15	1030	26.5	31000	1260	93
JUL							
13...	1400	9.2	1820	24.0	50600	1260	99
28...	1415	6.8	1000	27.5	1100	20	--
AUG							
13...	1445	6.0	2100	25.0	80300	1300	99
31...	1720	5.0	910	21.5	11600	157	--
31...	1725	5.0	970	21.5	11000	148	95
31...	1728	5.0	--	21.5	12100	163	--
31...	1732	5.0	945	21.5	12800	173	--
SEP							
09...	1315	7.0	1260	24.5	41100	777	--
15...	1240	7.0	824	18.0	16600	314	98

08334300 PAPERS WASH NEAR STAR LAKE TRADING POST, NM

LOCATION.--Lat 35°53'36", long 107°24'58" in SE¼SE¼NE¼, sec.12, T.19 N., R.6 W., McKinley County, Hydrologic Unit 13020205, on right bank 2.2 mi (3.5 km) east of Star Lake Trading Post, and 14.6 mi (23.5 km) southeast of Pueblo Pintado.

DRAINAGE AREA.--20.3 mi^2 (52.6 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,630 ft (2,021 m).

REMARKS.--Water-discharge records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49 ft^3/s (1.39 m^3/s) Sept. 17, 1981, gage height 4.17 ft (1.271 m), from rating curve extended above 2.0 ft^3/s (0.06 m^3/s) by step-backwater analysis; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 49 ft^3/s (1.39 m^3/s) Sept. 17, gage height, 4.17 ft (1.271 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.9	.00	.00
13	.00	.00	.00	.00	.00	.10	.00	.00	.00	.07	.00	.00
14	.00	.00	.00	.00	.00	.23	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.07	.00	.00	.00	4.0	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.46	.00	.09
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.33	.00	7.1
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.13
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.40	.00	.00	.00	12.79	.00	7.32
MEAN	.000	.000	.000	.000	.000	.013	.000	.000	.000	.41	.000	.24
MAX	.00	.00	.00	.00	.00	.23	.00	.00	.00	7.9	.00	7.1
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.8	.00	.00	.00	25	.00	15

CAL YR 1980 TOTAL 33.30 MEAN .091 MAX 4.9 MIN .00 AC-FT 66
WTR YR 1981 TOTAL 20.51 MEAN .056 MAX 7.9 MIN .00 AC-FT 41

08334300 PAPERS WASH NEAR STAR LAKE TRADING POST, NM--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1978 to current year.

REMARKS.--Under the heading SAMPLE SOURCE numerical values are used to indicate method of sampling; 40 indicates single-stage sampler.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	SAMPLE SOURCE (72005)
JUL								
12...	0335	E4.3	303	7.4	160	0	130	40.00
12...	0350	E8.0	294	7.7	--	--	--	40.00
12...	0445	E17	302	7.4	160	0	130	40.00
SEP								
16...	2345	E3.8	470	7.1	180	0	148	40.00
16...	2350	E7.6	310	7.1	170	0	139	40.00
16...	2355	E17	420	7.0	170	0	139	40.00
16...	2400	E21	410	7.1	160	0	131	40.00

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	SAMPLE SOURCE (72005)
JUL				
12...	0335	82000	1500	40.00
12...	0350	110000	1800	40.00
12...	0445	91000	1200	40.00
SEP				
16...	2345	83000	1500	--
16...	2350	130000	1900	40.00
16...	2355	69000	1100	--
16...	2400	68000	1000	40.00

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
JUL										
12...	0335	E4.3	3680	43	--	--	--	--	100	40.00
12...	0350	E8.0	5840	126	--	--	--	--	100	40.00
12...	0445	E17	4290	197	--	--	--	--	100	40.00
SEP										
16...	2349	E3.8	5420	--	70	83	95	100	--	40.00
16...	2350	E7.6	6150	--	74	92	99	100	--	40.00
16...	2359	E17	4320	--	71	86	95	100	--	40.00
16...	2400	E21	4260	--	80	89	98	100	--	40.00

08340500 ARROYO CHICO NEAR GUADALUPE, NM

LOCATION.--Lat 35°35'33", long 107°11'19", in NE¼ sec.30, T.16 N., R.3 W., Sandoval County, Hydrologic Unit 13020205, 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 mi^2 (3,600 km^2), approximately.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1282: 1944-50.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5,921 ft (1,804.7 m) National Geodetic Vertical Datum of 1929. Prior to June 21, 1968 at site 500 ft (150 m) upstream at datum 2.00 ft (0.610 m) higher.

REMARKS.--Water-discharge records poor. Diversions for irrigation of about 100 acres (40 hm^2) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--38 years, 21.2 ft^3/s (0.600 m^3/s), 15,360 acre-ft/yr (18.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,200 ft^3/s (430 m^3/s) Sept. 12, 1972, gage height, 17.5 ft (5.33 m) from floodmarks, from rating curve extended above 2,900 ft^3/s (82 m^3/s) on basis of slope-area measurements at gage heights 11.6 ft (3.536 m) and 14.8 ft (4.511 m); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,440 ft^3/s (69.1 m^3/s) at 0330 hours Sept. 18, gage height, 6.88 ft (2.097 m), no peak above base of 2,500 ft^3/s (71 m^3/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.89	4.7	6.8	5.0	5.0	3.0	2.0	.65	1.2	79	65	3.6
2	.80	4.1	4.7	6.4	6.4	3.6	2.0	.57	3.8	486	10	.99
3	.70	4.7	5.7	5.4	5.0	9.2	2.0	.37	2.8	33	10	.65
4	.65	3.8	6.8	4.1	5.0	7.7	2.0	.17	11	5.0	10	8.6
5	.57	4.7	8.7	7.7	7.7	6.8	2.0	.17	2.0	3.0	10	471
6	.53	3.8	9.2	5.7	3.3	5.4	2.0	.00	1.0	1.0	10	334
7	.49	3.3	8.7	6.4	2.8	4.1	2.0	.00	.50	.00	40	410
8	1.4	3.3	9.2	8.2	3.0	4.7	2.4	.00	.10	.00	188	105
9	2.6	3.6	5.7	3.8	5.0	4.1	2.2	.00	.00	62	50	32
10	2.4	4.7	4.7	2.8	7.2	4.7	3.0	.00	.00	10	10	14
11	1.9	4.1	5.0	1.9	5.7	14	3.3	.01	.00	5.0	5.0	9.2
12	2.4	4.7	4.0	3.8	5.7	8.7	3.8	.09	.00	32	209	12
13	3.8	5.7	6.4	6.0	6.4	14	8.2	.15	.00	29	18	8.2
14	4.1	5.0	13	4.7	1.7	12	6.0	.30	.00	40	8.7	6.0
15	10	5.0	10	4.4	2.0	8.7	7.7	.75	.00	30	6.8	5.0
16	6.4	2.8	4.7	5.4	2.0	6.8	5.7	1.9	.00	59	15	39
17	5.4	4.7	6.0	3.0	2.0	12	4.4	.65	.00	26	4.7	80
18	5.7	1.7	7.2	6.8	2.0	2.4	8.7	.45	.00	33	102	764
19	5.4	1.6	5.0	5.0	2.0	2.4	7.0	.37	.00	5.4	181	71
20	4.4	1.4	4.1	3.3	2.0	2.4	6.0	.89	.00	3.0	19	21
21	5.0	3.6	1.9	3.8	3.0	2.2	5.0	.57	.00	3.0	10	5.0
22	5.0	1.6	1.9	3.5	3.0	2.2	5.0	.49	.00	1.0	11	3.0
23	3.8	3.0	12	3.5	3.0	2.0	4.0	.49	.00	1.0	5.0	1.0
24	2.6	12	5.0	3.5	4.0	2.0	4.0	.57	.00	10	3.0	87
25	2.8	4.7	3.3	3.5	4.4	2.0	3.0	.70	.00	128	2.1	20
26	3.6	6.0	3.8	3.0	5.0	2.0	3.0	.75	.00	84	1.6	10
27	4.7	2.6	6.0	3.5	3.3	2.2	2.0	.65	.00	58	223	5.0
28	5.7	3.6	5.7	3.5	2.8	4.4	2.0	.57	.00	13	153	3.0
29	4.1	9.8	4.4	4.0	---	3.8	1.0	.61	.00	10	234	3.0
30	5.0	5.7	3.6	4.0	---	5.4	1.0	.75	1.3	5.0	21	3.0
31	5.7	---	3.0	4.0	---	5.4	---	.99	---	5.0	18	---
TOTAL	108.53	130.0	186.2	139.6	110.4	170.3	112.4	14.63	23.70	1259.40	1653.9	2535.24
MEAN	3.50	4.33	6.01	4.50	3.94	5.49	3.75	.47	.79	40.6	53.4	84.5
MAX	10	12	13	8.2	7.7	14	8.7	1.9	11	486	234	764
MIN	.49	1.4	1.9	1.9	1.7	2.0	1.0	.00	.00	.00	1.6	.65
AC-FT	215	258	369	277	219	338	223	29	47	2500	3280	5030

CAL YR 1980 TOTAL 4536.29 MEAN 12.4 MAX 600 MIN .00 AC-FT 9000
WTR YR 1981 TOTAL 6444.30 MEAN 17.7 MAX 764 MIN .00 AC-FT 12780

08340500 ARROYO CHICO NEAR GUADALUPE, NM--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948-56, 1978 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: July 1948 to June 1956, October 1978 to current year.
INSTRUMENTATION.--Automatic pumping sediment sampler since July 1979.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 201,000 mg/l Sept. 18, 1981; minimum daily, no flow on many days each year.
SEDIMENT LOADS: Maximum daily, 1,220,000 tons (1,110,000 tonnes) July 17, 1953; minimum daily, 0 ton (0 tonne) on many days each year.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 201,000 mg/l Sept. 18; minimum daily, no flow on many days.
SEDIMENT LOADS: Maximum daily, 594,000 tons (539,000 tonnes) Sept. 18; minimum daily, 0 ton (0 tonne) on many days.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)
OCT									
09...	1340	4.2	2470	20.0	3400	39	--	--	--
NOV									
17...	1200	4.7	1910	4.0	3640	46	58	66	80
FEB									
05...	1240	12	2000	.0	5180	168	36	47	56
25...	1445	4.4	2530	14.5	3330	40	70	81	90
APR									
08...	0945	2.4	2910	10.0	3850	25	53	58	61
08...	0946	2.4	2900	10.0	2530	16	81	90	94
MAY									
01...	1430	.65	2640	24.0	1820	3.2	--	--	--
JUN									
04...	1346	11	1990	26.0	23600	701	--	--	--
JUL									
13...	1100	27	1290	23.5	25900	1890	--	--	--
15...	1325	30	1310	28.5	20700	1680	--	--	--
31...	2300	96	1890	--	210000	54400	16	18	27
AUG									
01...	1215	53	986	--	28700	4110	65	78	91
13...	1250	18	1200	20.5	39400	1920	--	--	--
13...	1255	18	1210	20.5	41600	2020	--	--	--
13...	1350	18	1240	20.5	37700	1830	76	87	95
25...	1310	2.1	1960	--	5220	30	84	89	93
25...	1320	2.1	2080	--	5250	30	83	89	93
28...	1125	43	936	19.0	28400	3300	67	75	92
28...	1126	43	836	19.0	30000	3480	61	70	87
29...	0700	425	1230	--	164000	188000	15	18	25
31...	1435	21	1070	21.5	31000	1760	62	77	91
SEP									
03...	1215	.75	1720	--	4640	9.4	73	91	95
09...	1200	32	1070	18.5	7940	686	72	84	90
15...	1100	5.0	2150	18.0	1150	16	71	79	84

08340500 ARROYO CHICO NEAR GUADALUPE, NM--Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)	SED SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED SUSP. FALL DIAM. % FINER THAN .500 MM (70345)
OCT									
09...	96	--	--	--	--	--	--	--	--
NOV									
17...	--	--	--	--	--	86	95	100	--
FEB									
05...	--	--	--	--	--	63	76	99	100
25...	--	--	--	--	--	94	96	100	--
APR									
08...	62	63	64	64	100	--	--	--	--
08...	--	--	--	--	--	96	98	99	100
MAY									
01...	96	--	--	--	--	--	--	--	--
JUN									
04...	91	--	--	--	--	--	--	--	--
JUL									
13...	98	--	--	--	--	--	--	--	--
15...	98	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	50	72	97	100
AUG									
01...	--	--	--	--	--	96	97	99	100
13...	96	--	--	--	--	--	--	--	--
13...	94	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	97	98	100	--
25...	96	99	100	--	--	--	--	--	--
25...	97	98	100	--	--	--	--	--	--
28...	--	--	--	--	--	96	98	99	100
28...	--	--	--	--	--	93	97	99	100
29...	--	--	--	--	--	46	65	95	100
31...	--	--	--	--	--	95	99	100	--
SEP									
03...	96	98	100	--	--	--	--	--	--
09...	--	--	--	--	--	95	99	100	--
15...	92	97	100	--	--	--	--	--	--

RIO GRANDE BASIN
08340500 ARROYO CHICO NEAR GUADALUPE, NM--Continued
WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	2000	4.8	12000	152	15000	275	5000	67	4800	65	3000	24
2	1800	3.9	8000	89	10000	127	7000	121	5000	86	4000	39
3	1600	3.0	10000	127	14000	215	6500	95	5000	67	20000	497
4	1500	2.6	3620	37	15000	275	6000	81	4800	65	17000	353
5	1400	2.2	5000	63	19000	446	8000	166	5180	108	10000	184
6	1200	1.7	4000	41	20000	497	5000	67	3200	29	2750	40
7	1000	1.3	3200	29	19000	446	4500	61	3000	23	4000	44
8	2500	9.5	3200	29	20000	497	4410	98	3000	24	5000	63
9	3400	24	3800	37	16000	302	4000	41	4800	65	4200	46
10	3200	21	6000	76	15000	243	3000	23	8000	156	4800	61
11	3000	15	5000	55	14000	189	2500	13	6000	92	28000	1060
12	3200	21	5500	70	10000	108	4000	41	6000	92	18000	423
13	4000	41	8000	123	15000	259	16000	259	7000	121	25000	945
14	4500	50	7000	94	25000	877	10000	127	4000	18	20000	648
15	22200	599	6500	88	22500	607	8000	95	2500	13	18000	423
16	17400	301	3500	26	3300	42	13000	190	2500	13	10000	184
17	15000	219	4120	52	16000	259	10000	135	2400	13	23000	745
18	15500	239	3000	14	16500	321	12000	220	2400	13	5000	32
19	15000	219	2800	12	15000	202	15000	202	2200	12	3500	23
20	10000	119	2500	9.5	10000	111	4000	36	2200	12	3300	21
21	13000	175	3600	35	3000	15	4000	41	3000	24	3200	19
22	13000	175	2800	12	3000	15	3800	36	3000	24	3200	19
23	5000	51	3500	28	5920	192	3800	36	2900	23	3000	16
24	4000	32	10100	327	5500	74	3700	35	3500	38	3000	16
25	3500	26	6000	76	3500	31	3700	35	3530	42	2900	16
26	4000	39	10000	162	3800	39	3200	26	4500	61	2900	16
27	6000	76	3500	25	8000	130	3500	33	3300	29	3200	19
28	15000	231	4000	39	8000	123	3500	33	3000	23	4000	48
29	8000	89	21900	579	6000	71	4300	46	---	---	3900	40
30	13000	175	14000	215	3800	37	4500	49	---	---	12000	175
31	15000	231	---	---	3200	26	4200	45	---	---	10000	146
TOTAL	---	3197.0	---	2721.5	---	7051	---	2553	---	1351	---	6385

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3000	16	1880	3.3	2200	7.1	38100	13500	39100	9280	19000	185
2	3000	16	1600	2.5	2650	27	116000	182000	18000	486	11000	29
3	2900	16	1000	1.0	6040	46	26500	2360	16000	432	5500	10
4	2900	16	191	.09	22300	662	9000	121	12000	324	15000	348
5	2900	16	200	.09	2200	12	4930	40	8500	229	143000	393000
6	2800	15	0	.00	2000	5.4	3080	8.3	6500	175	166000	183000
7	2800	15	0	.00	1500	2.0	0	.0	33100	18600	167000	185000
8	3190	21	0	.00	200	.05	0	.0	94000	47700	111000	50200
9	3000	18	0	.00	0	.00	41200	9710	47000	6340	9000	778
10	3500	28	0	.00	0	.00	21000	567	24500	661	4800	181
11	3600	32	150	.00	0	.00	11200	151	24300	328	3900	97
12	4000	41	175	.04	0	.00	42500	3670	125000	113000	17500	567
13	18000	399	185	.07	0	.00	31400	2460	33000	1600	7600	168
14	16000	259	300	.24	0	.00	48200	6020	23000	540	1800	29
15	17000	353	1500	3.0	0	.00	27800	5950	16200	297	1200	16
16	15000	231	2400	12	0	.00	40100	7460	30900	2180	34000	3490
17	5500	65	1900	3.3	0	.00	42000	2950	20000	254	76500	16500
18	19000	446	1400	1.7	0	.00	46200	4730	47600	32900	201000	594000
19	16500	312	1100	1.1	0	.00	30800	449	84800	49800	64000	12300
20	16000	259	1950	4.7	0	.00	17000	138	36000	1850	22000	1250
21	15000	202	1600	2.5	0	.00	11800	96	26500	715	8500	115
22	10000	135	1500	2.0	0	.00	7600	21	15000	445	4800	39
23	5000	54	1500	2.0	0	.00	4300	12	8950	121	2200	6
24	4500	49	1500	2.3	0	.00	4500	121	6900	56	57300	16900
25	3200	26	1900	3.6	0	.00	64500	45300	5300	30	13400	724
26	3000	24	1950	3.9	0	.00	52500	11900	4300	19	4700	127
27	2500	13	1900	3.3	0	.00	41500	6500	50800	200000	3000	40
28	2500	13	1500	2.3	0	.00	28000	983	65200	53000	2000	16
29	2000	5.4	1650	2.7	0	.00	15800	427	112000	95600	1500	12
30	2000	5.4	1950	3.9	18600	97	12000	162	44500	2520	1200	10
31	---	---	2000	5.3	---	---	17000	229	31000	1760	---	---
TOTAL	---	3100.8	---	66.93	---	858.55	---	308035.3	---	641242	---	1459137

TOTAL LOAD FOR YEAR: 2435699.08 TONS.

08341400 BLUEWATER LAKE NEAR BLUEWATER, NM

LOCATION.--Lat 35°17'31", long 108°06'40", in SE¼ sec.9, T.12 N., R.12 W., Cibola County, Hydrologic Unit 13020207, at left end of Bluewater Dam on Bluewater Creek, and 9.5 mi (15.2 km) west of Bluewater.

DRAINAGE AREA.--201 mi^2 (521 km^2).

PERIOD OF RECORD.--June 1927 to December 1950 (monthend contents only, published in WSP 1732), April 1958 to current year (month end contents only).

GAGE.--Water-stage recorder. Datum of gage is 7,345.57 ft (2,238.930 m) National Geodetic Vertical Datum of 1929. July 1958 to January 1961, nonrecording gage at nearby site, same datum. Gage heights have been converted to sea-level elevations.

REMARKS.--Reservoir is formed by concrete arch dam. Storage began in 1927. Capacity, 38,500 acre-ft (47.5 hm^3) survey of 1945 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 hm^3) at elevation 7,405.6 ft (2,257.23 m) crest of ungated spillway over dam. Capacity table used through 1944 showed a capacity of 50,300 acre-ft (62.0 hm^3) at crest of ungated spillway over dam, and that used from 1945-50, 43,500 acre-ft (53.6 hm^3). Tables used prior to 1958 are not available and no adjustments are made for changes in tables. Dead storage, 3.4 acre-ft (4,190 m^3) 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 (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.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents determined, 47,100 acre-ft (58.1 hm^3) Apr. 30, 1941. Contents may have been greater on Apr. 28, 1941 when peak discharge of 800 ft^3/s (22.7 m^3/s) occurred at station 8 mi (13 km) downstream; no storage at times prior to 1947.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 29,830 acre-ft (36.8 hm^3) Oct. 1, elevation, 7,397.2 ft (2,254.67 m); minimum, 16,240 acre-ft (20.0 hm^3) Sept. 30, elevation, 7,386.2 ft (2,251.31 m).

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	7397.2	29,830	-----
Oct. 31	7396.4	28,700	-1130
Nov. 30	7396.0	28,140	-560
Dec. 31	7395.5	27,460	-680
CAL YR 1980			+11320
Jan. 31	7395.2	27,050	-410
Feb. 28	7394.9	26,650	-400
Mar. 31	7394.7	26,380	-270
Apr. 30	7394.9	26,650	+270
May 31	7392.9	24,040	-2610
June 30	7390.7	21,300	-2740
July 31	7389.3	19,610	-1690
Aug. 31	7387.4	17,480	-2130
Sept. 30	7386.2	16,240	-1240
WTR YR 1981			-13590

08342600 SAN MATEO CREEK NEAR SAN MATEO, NM

LOCATION.--Lat 35°20'46", long 107°46'31", in NW¼NE¼ sec.22, T.13 N., R.9 W., McKinley County, Hydrologic Unit 13020207, on right bank, 0.3 mi (0.5 km) southeast of intersections of State Highways 53 and 509, 1.4 mi (2.3 km) upstream from Arroyo del Puerto, 8.2 mi (13.2 km) west of San Mateo and 15 mi (24 km) north of Grants.

DRAINAGE AREA.--75.6 mi^2 (195.8 km^2).

PERIOD OF RECORD.--May 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,800 ft (2,073 m) from topographic map.

REMARKS.--Records fair except those for winter periods which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 628 ft^3/s (17.8 m^3/s) Aug. 12, 1977, gage height, 5.80 ft (1.768 m), from rating curve extended above 170 ft^3/s (4.8 m^3/s) on basis of slope-area measurement of peak flow; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 254 ft^3/s (7.19 m^3/s) Aug. 18, gage height, 4.70 ft (1.433 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.20	.11	.59	.28	.00	.00	.21	.13	.00	.00
2	.00	.18	.20	.12	.75	.18	.00	.00	.10	.11	.00	.00
3	.00	.28	.18	.13	.76	.42	.00	.00	.09	.03	.00	.00
4	.00	.28	.20	.16	.49	.89	.04	.00	.09	.03	.00	.00
5	.00	.28	.22	.08	.42	.25	.05	.00	.03	.04	.00	.06
6	.00	.25	.20	.11	.37	.18	.00	.00	.02	.03	.00	.02
7	.07	.22	.18	.12	.48	.10	.00	.00	.00	.03	.00	.00
8	.09	.22	.16	.18	.60	.03	.00	.00	.00	.06	.00	.00
9	.00	.22	.11	.10	.61	.03	.00	.00	.00	1.1	.00	.00
10	.00	.25	.16	.19	.39	.18	.00	.00	.00	2.1	.00	.00
11	.00	.18	.17	.20	.42	.31	.00	.00	.00	1.5	.00	.00
12	.00	.14	.21	.27	.20	.15	.00	.00	.00	16	.00	.00
13	.00	.14	.31	.32	.11	.18	.10	.00	.00	1.4	.00	.00
14	.00	.18	.21	.14	.11	.27	.00	.00	.00	.50	.00	.00
15	.00	.17	.15	.19	.04	.18	.00	.00	.00	.30	.00	.00
16	.00	.28	.15	.11	.02	.00	.00	.00	.00	.10	.01	.00
17	.00	.28	.15	.14	.02	.00	.00	.00	.00	.10	.00	.00
18	.00	.16	.11	.24	.02	.05	.00	.00	.00	.00	23	.60
19	.00	.17	.06	.16	.04	.06	.00	.00	.00	.00	.18	.03
20	.00	.16	.09	.17	.02	.08	.00	.00	.00	.00	.00	.00
21	.00	.18	.08	.19	.02	.07	.00	.00	.00	.00	.00	.00
22	.00	.17	.13	.29	.12	.07	.00	.00	.00	.00	.33	.00
23	.00	.18	.08	.26	.12	.00	.00	.00	.00	.00	.00	.00
24	.00	.22	.08	.18	.17	.00	.00	.00	.00	.00	.00	.00
25	.00	.35	.14	.31	.12	.00	.00	.00	.00	1.0	.00	.00
26	.00	.20	.10	.28	.05	.00	.00	.00	.00	.50	.00	.00
27	.00	.20	.09	.38	.10	.06	.00	.00	.00	.10	.22	.00
28	.00	.25	.05	.31	.18	.07	.00	.00	.00	.10	.00	.00
29	.00	.25	.07	.44	---	.08	.00	.02	1.3	.00	.00	.00
30	.00	.22	.06	.33	---	.09	.00	.12	.25	.00	.00	.00
31	.00	---	.14	.44	---	.00	---	.17	---	.00	.00	---
TOTAL	.16	6.26	4.44	6.65	7.34	4.26	.19	.31	2.09	25.26	23.74	.71
MEAN	.005	.21	.14	.21	.26	.14	.006	.010	.070	.81	.77	.024
MAX	.09	.35	.31	.44	.76	.89	.10	.17	1.3	16	23	.60
MIN	.00	.00	.05	.08	.02	.00	.00	.00	.00	.00	.00	.00
AC-FT	.3	12	8.8	13	15	8.4	.4	.6	4.1	50	47	1.4

CAL YR 1980 TOTAL 74.47 MEAN .20 MAX 3.0 MIN .00 AC-FT 148
WTR YR 1981 TOTAL 81.41 MEAN .22 MAX 23 MIN .00 AC-FT 161

08343000 RIO SAN JOSE AT GRANTS, NM

LOCATION.--Lat 35°09'16", long 107°52'11", in SW¼NW¼ sec.26, T.11 N., R.10 W., Cibola County, Hydrologic Unit 13020207, on right bank at bridge on old State Highway 53 in Grants, 0.2 mi (0.3 km) south of old U.S. Highway 66, and at mile 67.8 (109.1 km).

DRAINAGE AREA.--1,020 mi^2 (2,640 km^2), 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".

REVISED RECORDS.--WSP 1512: 1913-14. WSP 1712: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,468.34 ft (1,971.550 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). See WSP 1732 or 1923 for history of changes prior to Jan. 1, 1926.

REMARKS.--Records fair. Flow slightly regulated by Bluewater Lake (station 08341400) 24 mi (39 km) upstream. Diversions and groundwater withdrawals for irrigation of about 4,500 acres (18 km^2) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--40 years (water years 1913, 1915-20, 1922, 1924-25, 1950-66, 1968-81), 3.22 ft^3/s (0.091 m^3/s), 2,330 acre-ft/yr (2.87 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD (1950-66 AND SINCE 1968).--Maximum discharge recorded, 1,760 ft^3/s (49.8 m^3/s) Aug. 28, 1952, gage height, 5.35 ft (1.631 m), from rating curve extended above 300 ft^3/s (8.50 m^3/s) on basis of velocity-area studies; no flow for long periods.

EXTREMES OUTSIDE PERIOD OF RECORD.--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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 172 ft^3/s (4.87 m^3/s) at 1630 hours July 16, gage height, 3.50 ft (1.067 m), no peak above base of 200 ft^3/s (5.7 m^3/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.52	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.98
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.12	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.5	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	10	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.1	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.44	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	14	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.5	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.4	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.09	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.09	.52	37.16	.12	.98
MEAN	.000	.000	.000	.000	.000	.000	.000	.003	.017	1.20	.004	.033
MAX	.00	.00	.00	.00	.00	.00	.00	.09	.52	14	.12	.98
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.2	1.0	74	.2	1.9

CAL YR 1980 TOTAL 2961.95 MEAN 8.09 MAX 355 MIN .00 AC-FT 5880
WTR YR 1981 TOTAL 38.87 MEAN .11 MAX 14 MIN .00 AC-FT 77

08343100 GRANTS CANYON AT GRANTS, NM

LOCATION.--Lat 35°09'39", long 107°50'15", in NE¼NE¼ sec.25, T.11 N., R.10 W., Cibola County, Hydrologic Unit 13020207, on upstream side of culvert under Roosevelt Avenue, in 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 mi^2 (33.7 km^2).

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

GAGE.--Water-stage recorder and culvert control. Altitude of gage is 6,450 ft (1,966 m), from topographic map.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--20 years, 0.151 ft^3/s (0.004 m^3/s), 109 acre-ft/yr (134,400 m^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,550 ft^3/s (43.9 m^3/s) Aug. 26, 1963, gage height, 5.10 ft (1.554 m), from rating curve extended above 220 ft^3/s (6.23 m^3/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.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 175 ft^3/s (5.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
July 12	0600	282	7.99	2.04	0.622	Aug. 8	2300	*1,200	34.0	4.40	1.341

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	44	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.3	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	11	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	11.01	50.30	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.36	1.62	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	11	44	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	22	100	.00

CAL YR 1980 TOTAL 8.58 MEAN .023 MAX 8.1 MIN .00 AC-FT 17
WTR YR 1981 TOTAL 61.31 MEAN .17 MAX 44 MIN .00 AC-FT 122

08343500 RIO SAN JOSE NEAR GRANTS, NM

LOCATION.--Lat 35°04'27", long 107°45'01", in SE¼SE¼ sec.23, T.10 N., R.9 W., Cibola County, Hydrologic Unit 13020207, 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 mi^2 (5,960 km^2), approximately, of which 1,130 mi^2 (2,930 km^2) 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".

REVISED RECORDS.--WSP 898: 1936-39(M). WSP 1512: 1943. WSP 1712: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 6,269.47 ft (1,910.934 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow slightly regulated by Bluewater Lake (station 08341400), 34 mi (55 km) upstream. Diversions and ground-water withdrawal for irrigation of about 5,100 acres (21 km^2) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--45 years, 6.69 ft^3/s (0.189 m^3/s), 4,850 acre-ft/yr (5.98 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,400 ft^3/s (39.6 m^3/s) Sept. 20, 1963, gage height, 4.87 ft (1.484 m), from rating curve extended above 450 ft^3/s (12.7 m^3/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 ft^3/s (0.054 m^3/s) Feb. 21, 1973.

EXTREMES OUTSIDE PERIOD OF RECORD.--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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 244 ft^3/s (6.91 m^3/s) at 1800 hours July 14, gage height, 2.99 ft (0.911 m), no other peak above base of 100 ft^3/s (2.8 m^3/s); minimum, 3.8 ft^3/s (0.11 m^3/s) Feb. 3, Apr. 29, 30, May 1, 2, 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	6.9	5.5	6.0	4.7	6.3	4.8	4.2	7.1	7.1	6.1	7.7
2	6.3	6.8	5.4	5.9	4.6	6.5	4.9	4.3	7.2	6.9	6.2	8.2
3	6.3	7.1	5.5	5.8	4.7	7.5	4.9	4.4	7.2	6.8	6.3	8.1
4	6.6	7.1	5.5	6.0	4.8	7.2	4.8	4.4	7.4	6.7	6.1	8.1
5	6.6	6.9	5.5	6.0	4.8	6.1	4.8	4.5	7.6	6.4	6.2	8.3
6	6.3	6.9	5.5	5.5	4.8	6.0	4.7	4.7	7.7	6.3	6.3	9.1
7	6.4	6.8	5.5	5.9	5.1	5.8	4.8	4.6	7.8	6.1	6.1	10
8	6.8	6.8	5.4	6.0	5.1	5.7	4.6	4.5	7.8	6.0	6.4	8.7
9	6.9	6.7	5.2	5.8	5.2	5.6	4.8	4.4	7.8	5.6	8.0	7.8
10	6.7	6.6	5.2	5.9	5.3	5.8	4.9	4.2	8.0	5.4	21	7.7
11	6.5	6.6	5.3	5.7	5.0	6.1	4.9	4.3	8.1	5.4	8.7	7.7
12	6.9	6.5	5.6	5.5	5.1	6.1	5.0	4.5	8.2	7.0	6.8	8.1
13	6.8	6.4	5.7	5.7	5.1	6.0	5.1	4.5	8.3	11	6.5	7.7
14	7.0	6.3	6.0	5.6	5.4	5.7	5.0	4.6	8.4	37	6.7	7.6
15	7.1	6.2	6.0	5.6	5.5	5.5	5.1	4.8	8.4	27	6.8	7.5
16	7.0	6.0	5.8	5.6	5.4	5.6	5.1	5.0	8.6	7.2	7.0	7.4
17	7.4	5.8	5.8	5.5	5.4	5.5	5.1	5.0	8.7	8.8	7.0	7.3
18	7.4	6.1	5.8	5.6	5.5	5.4	4.9	5.1	8.8	13	7.0	7.3
19	7.3	6.0	5.6	5.6	5.5	5.3	5.1	5.0	8.8	7.6	7.0	7.3
20	7.2	5.8	5.6	5.6	5.6	5.3	5.0	5.1	8.9	5.8	7.4	7.0
21	7.5	5.6	5.7	5.3	5.7	5.3	4.9	5.3	8.7	5.4	7.6	6.8
22	7.5	5.6	5.7	5.3	5.5	5.0	4.8	5.5	8.6	5.5	7.8	6.6
23	7.3	5.7	5.8	5.3	5.8	5.1	4.7	5.7	8.4	5.5	7.8	6.6
24	7.0	5.7	5.8	5.3	6.1	5.1	4.7	6.0	8.2	6.1	7.7	7.0
25	7.0	5.6	5.8	5.3	5.9	4.9	4.6	6.1	8.0	23	7.8	7.6
26	7.2	5.7	5.6	5.2	5.8	5.0	4.6	6.4	7.9	28	7.7	7.1
27	7.1	5.8	5.7	5.2	5.7	5.1	4.5	6.7	7.7	9.7	7.6	6.6
28	6.9	5.6	5.8	5.2	6.1	5.3	4.4	6.6	7.6	6.6	7.8	6.0
29	6.9	5.5	5.9	5.2	---	4.9	4.3	6.6	7.4	6.1	7.4	5.9
30	7.1	5.5	5.9	4.7	---	4.7	4.2	6.9	7.2	5.9	7.6	5.9
31	6.9	---	6.1	4.8	---	4.8	---	6.6	---	5.9	7.4	---
TOTAL	214.4	186.6	175.2	171.6	149.2	174.2	144.0	160.5	240.5	300.8	233.8	224.7
MEAN	6.92	6.22	5.65	5.54	5.33	5.62	4.80	5.18	8.02	9.70	7.54	7.49
MAX	7.5	7.1	6.1	6.0	6.1	7.5	5.1	6.9	8.9	37	21	10
MIN	6.3	5.5	5.2	4.7	4.6	4.7	4.2	4.2	7.1	5.4	6.1	5.9
AC-FT	425	370	348	340	296	346	286	318	477	597	464	446

CAL YR 1980 TOTAL 5491.9 MEAN 15.0 MAX 333 MIN 5.0 AC-FT 10890
WTR YR 1981 TOTAL 2375.5 MEAN 6.51 MAX 37 MIN 4.2 AC-FT 4710

08343500 RIO SAN JOSE NEAR GRANTS, NM -- Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1980 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
SEP 09...	1150	7.9	1210	8.1	24.0	16.5	9.1	34	370	190	160

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
SEP 09...	86	37	140	3.5	6.7	226	0	185	210	270	130

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
SEP 09...	.7	31	817	.81	.070	.69	.630	310	<10	3.1	.8

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
SEP 09...	1150	8	8	0	59	310	0	<1	10

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)
SEP 09...	0	2	0	1	<10	100	1	.1	.0

DATE	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
SEP 09...	5	<10	3	4	0	9.0	20	7

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
SEP 09...	1150	<17	1.2	<9.9	2.3	<9.6	2.2	.06	5.5

08343500 RIO SAN JOSE NEAR GRANTS, NM -- Continued

WATER QUALITY RECORDS

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
SEP 09...	1150	25	48

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
IDENTIFICATION OF PHYTOPLANKTON

DATE	SEP 9,81
TIME	1150
TOTAL CELLS/ML	1700
DIVERSITY: DIVISION	1.2
.CLASS	1.2
..ORDER	2.1
...FAMILY	2.2
....GENUS	2.8

ORGANISM	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)		
.BACILLARIOPHYCEAE		
..ACHNANTHALES		
...ACHNANTHACEAE		
....ACHNANTHES	28	2
....COCCONEIS	110	6
....RHOICOSPHENIA	42	2
..BACILLARIALES		
...NITZSCHIACEAE		
....NITZSCHIA	69	4
..EUPODISCALES		
...COSCINODISCACEAE		
....CYCLOTELLA	14	1
....MELOSIRA	28	2
..FRAGILARIALES		
...FRAGILARIACEAE		
....SYNEDRA	120	7
..NAVICULALES		
...CYMBELLACEAE		
....CYMBELLA	28	2
...GOMPHONEMACEAE		
....GOMPHONEMA	69	4
...NAVICULACEAE		
....NAVICULA	97	6
..SURIRELLALES		
...SURIRELLACEAE		
....SURIRELLA	42	2
CYANOPHYTA (BLUE-GREEN ALGAE)		
.CYANOPHYCEAE		
..OSCILLATORIALES		
...OSCILLATORIACEAE		
....LYNGBYA	190	11
....OSCILLATORIA	800#	46
EUGLENOPHYTA (EUGLENOIDS)		
.EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....EUGLENA	83	5

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
SEP 09...	1150	7.9	16.5	40	.85

08349800 RIO PAGUATE BELOW JACKPILE MINE NEAR LAGUNA, NM

LOCATION.--Lat 35°07'09", long 107°19'58", in SW¼SE¼ sec. 2, T.10 N., R.5 W., Cibola County, Hydrologic Unit 13020207, in Paguate Purchase Grant, near right bank on downstream end of bridge piling of the Atchison, Topeka and Santa Fe Railway Co. bridge, 1.4 mi (2.3 km) downstream from Rio Moquino, 4.2 mi (6.8 km) upstream from Paguate Reservoir, 5.0 mi (8.0 km) southeast of Paguate and 26 mi (42 km) east of Grants.

DRAINAGE AREA.--107 mi^2 (277 km^2).

PERIOD OF RECORD.--March 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,820 ft (1,774 m), from topographic map.

REMARKS.--Records poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--5 years, 1.20 ft^3/s (0.034 m^3/s), 869 acre-ft/yr (1.07 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,820 ft^3/s (79.9 m^3/s) Aug. 19, 1981, gage height, 10.19 ft (3.106 m), from contracted-opening measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s (2.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Aug. 19	unknown	*2820	79.9	10.19	3.106	Sept. 5	1715	1220	34.6	7.46	2.274

Minimum discharge, 0,01 $ft^3/2$ (0.0003 m^3/s) Sept. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.22	.28	.38	1.9	.71	.89	1.2	.60	.20	1.0	.02
2	.06	.24	.29	.38	2.4	.68	.93	1.2	.60	1.0	2.0	.01
3	.06	.22	.31	.47	2.1	.80	.98	1.2	.70	.80	1.0	.01
4	.05	.24	.30	.47	2.1	.71	.88	1.2	.80	.60	.70	.20
5	.05	.25	.30	.48	1.2	.78	.87	1.3	.70	.40	.40	55
6	.05	.25	.32	.47	1.3	.77	.96	1.3	.64	.30	.22	5.0
7	.08	.24	.32	.58	1.0	.73	1.1	1.3	.60	.27	.24	1.0
8	.08	.23	.32	.59	1.1	.74	1.1	1.3	.50	.24	.40	.90
9	.08	.24	.32	.50	1.1	.73	1.0	1.2	.45	.26	.45	.85
10	.09	.24	.35	.54	.96	.99	1.0	1.1	.45	.40	.40	.80
11	.09	.25	.30	.69	1.2	1.4	1.0	1.2	.40	.50	.37	.75
12	.11	.25	.32	.69	1.1	.81	1.0	1.2	.40	.60	.36	.75
13	.11	.25	.31	.63	.95	.76	2.2	1.2	.40	3.0	.50	.75
14	.14	.23	.28	.56	.92	.78	2.0	1.1	.40	60	.52	.80
15	.14	.26	.28	.66	.91	.72	2.5	1.1	.40	.50	.50	.85
16	.11	.33	.28	.68	.94	.71	1.5	1.0	.30	.54	.45	.90
17	.12	.33	.27	.70	.94	.67	1.3	1.0	.25	.52	.50	1.0
18	.12	.33	.29	.77	.89	.70	1.3	1.0	.20	.45	.60	.85
19	.13	.32	.30	.83	.81	.70	1.5	1.0	.10	.45	100	.80
20	.14	.35	.30	.89	.79	.71	1.5	1.0	.04	.40	1.0	.80
21	.15	.35	.32	.93	.78	.78	1.5	.95	.02	.40	.60	.80
22	.15	.38	.43	1.0	.89	.81	1.5	.90	.02	.42	.30	.80
23	.14	.37	.32	1.1	.86	.80	1.5	1.0	.03	.43	.29	3.0
24	.15	.39	.31	.98	.80	.80	1.5	1.0	.03	.45	.28	1.0
25	.15	.39	.35	.99	.78	.82	1.5	.90	.04	.40	.25	.90
26	.19	.40	.38	1.1	.77	.93	1.4	.85	.04	.33	.20	.80
27	.20	.42	.39	1.2	.78	.93	1.4	.80	.05	.31	.14	.75
28	.19	.41	.41	1.1	.79	.97	1.5	.85	.06	.30	.07	.70
29	.20	.34	.40	1.0	---	1.0	1.4	.90	.06	.30	.08	.70
30	.24	.34	.39	1.0	---	.95	1.3	1.1	.06	.27	.05	.65
31	.22	---	.38	1.1	---	.94	---	.90	---	.25	.05	---
TOTAL	3.85	9.06	10.12	23.46	31.06	25.33	40.01	33.25	9.34	75.29	113.92	82.14
MEAN	.12	.30	.33	.76	1.11	.82	1.33	1.07	.31	2.43	3.67	2.74
MAX	.24	.42	.43	1.2	2.4	1.4	2.5	1.3	.80	60	100	55
MIN	.05	.22	.27	.38	.77	.67	.87	.80	.02	.20	.05	.01
AC-FT	7.6	18	20	47	62	50	79	66	19	149	226	163

CAL YR 1980 TOTAL 289.26 MEAN .79 MAX 42 MIN .00 AC-FT 574
WTR YR 1981 TOTAL 456.83 MEAN 1.25 MAX 100 MIN .01 AC-FT 906

NOTE: NO GAGE HEIGHT RECORD APRIL 19 TO AUGUST 25

08351500 RIO SAN JOSE AT CORREO, NM

LOCATION.--Lat 34°58'03", long 107°10'10", in NE¼ sec.32, T.9 N., R.3 W., Cibola County, Hydrologic Unit 13020207, on left bank 0.3 mi (0.5 km) downstream from State Highway 6, 1.2 mi (1.9 km) northeast of Correo, and 13 mi (21 km) upstream from mouth.

DRAINAGE AREA.--3,660 mi^2 (9,480 km^2), approximately, of which about 1,130 mi^2 (2,930 km^2) 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 and concrete control. Datum of gage is 5,474.88 ft (1,668.743 m) National Geodetic Vertical Datum of 1929. Oct. 1, 1958 to Sept. 30, 1975, water-stage recorder at site 1 mi (1.6 km) upstream at datum 17.55 ft (5.349 m) higher.

REMARKS.--Records good except those for February, which are fair. Flow regulated to some extent since 1927 by Bluewater Lake (station 08341400) 79 mi (127 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--38 years, 11.2 ft^3/s (0.317 m^3/s), 8,110 acre-ft/yr (10.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,150 ft^3/s (202 m^3/s) Aug. 11, 1955; maximum gage height, 20.7 ft (6.31 m), Aug. 22, 1958, backwater from dam (present datum); no flow for many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood which probably occurred Aug. 21, 1935, reached a stage of 15.4 ft (4.69 m), from floodmarks, (discharge, about 11,000 ft^3/s or 312 m^3/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.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft^3/s (23 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
July 7	1100	*1560	44.2	6.13	1.868	Aug. 1	0530	1180	33.4	5.48	1.670
July 13	0930	1050	29.7	5.21	1.588						

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	1.8	3.6	6.1	6.8	6.2	3.7	.00	.00	.00	278	.00
2	.00	1.7	3.5	6.4	6.4	5.8	2.0	.00	.00	.00	11	.00
3	.00	1.3	3.5	6.0	5.7	5.4	1.1	.00	.00	.00	4.3	.00
4	.00	.92	3.3	6.5	6.8	5.1	.37	.00	.00	.00	14	.00
5	.00	1.2	3.4	6.5	7.2	4.5	.15	.00	.00	.00	5.1	18
6	.00	.94	3.4	6.3	8.1	5.0	.79	.00	.00	.00	1.9	89
7	.00	.34	3.5	7.2	9.0	5.3	.72	.00	.00	196	.05	17
8	.00	.05	3.7	6.4	6.7	4.7	.93	.00	.00	50	5.1	21
9	.00	.35	3.5	6.0	7.5	4.0	1.1	.00	.00	20	1.4	6.2
10	.00	.84	3.5	6.5	7.3	4.1	1.3	.00	.00	1.0	23	2.1
11	.00	1.3	4.1	8.2	5.9	6.2	.38	.00	.00	.00	25	.89
12	.00	1.7	4.4	6.8	6.9	6.8	.05	.00	.00	.85	8.7	.91
13	.00	2.0	4.0	6.5	6.2	6.2	1.2	.00	.00	438	88	.97
14	.00	2.1	4.0	7.1	5.8	5.1	2.0	.00	.00	121	23	.88
15	.00	2.0	4.5	6.7	5.6	5.4	3.1	.00	.00	137	6.4	107
16	.00	1.8	4.3	7.7	5.1	5.0	1.5	.00	.00	68	2.4	8.9
17	.00	1.2	4.0	6.7	7.4	4.5	.20	.00	.00	67	1.0	1.2
18	.00	.82	4.1	7.4	6.6	4.2	.00	.00	.00	44	.91	2.3
19	.00	1.2	4.0	7.3	6.4	3.8	.09	.00	.00	8.4	2.9	5.3
20	.00	1.3	4.0	6.8	6.2	4.1	.00	.00	.00	5.0	.63	19
21	.00	1.5	5.0	6.8	6.8	4.3	.00	.00	.00	3.3	.60	4.5
22	.00	1.9	5.1	7.2	4.6	3.3	.00	.00	.00	.22	7.4	.29
23	.00	2.9	5.3	7.8	5.2	4.0	.00	.00	.00	.00	11	.00
24	.00	2.7	5.2	8.2	5.0	2.9	.00	.00	.00	.00	2.1	20
25	.00	3.1	5.7	7.3	5.4	2.8	.00	.00	.00	.00	.00	2.7
26	.00	3.5	6.1	6.8	5.8	3.2	.00	.00	.00	5.1	.00	.74
27	.46	3.7	6.0	6.9	6.2	3.7	.00	.00	.00	.03	3.0	.59
28	1.0	4.2	5.7	8.0	6.8	3.6	.00	.00	.00	.00	.09	.47
29	1.3	3.9	5.9	7.6	---	3.6	.00	.00	.00	.61	.00	.47
30	1.5	3.4	5.9	7.2	---	3.7	.00	.00	.00	.47	.00	.43
31	1.6	---	6.0	7.4	---	3.9	---	.00	---	.00	.00	---
TOTAL	5.86	55.66	138.2	216.3	179.4	140.4	20.68	.00	.00	1165.98	526.98	330.84
MEAN	.19	1.86	4.46	6.98	6.41	4.53	.69	.000	.000	37.6	17.0	11.0
MAX	1.6	4.2	6.1	8.2	9.0	6.8	3.7	.00	.00	438	278	107
MIN	.00	.05	3.3	6.0	4.6	2.8	.00	.00	.00	.00	.00	.00
AC-FT	12	110	274	429	356	278	41	.00	.00	2310	1050	656

CAL YR 1980 TOTAL 5165.82 MEAN 14.1 MAX 552 MIN .00 AC-FT 10250
WTR YR 1981 TOTAL 2780.30 MEAN 7.62 MAX 438 MIN .00 AC-FT 5510

08353000 RIO PUERCO NEAR BERNARDO, NM

LOCATION.--Lat 34°24'33", long 106°51'09", in SE¼ sec.8, T.2 N., R.1 E., Socorro County, Hydrologic Unit 13020204, 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 mi^2 (19,040 km^2), approximately, of which at least 1,130 mi^2 (2,930 km^2) does not contribute directly to surface runoff.

WATER-DISCHARGE RECORDS

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.

REVISED RECORDS.--WSP 1512: 1941-42, 1944-45, 1946(P), 1947-49. WSP 1632: 1957. WSP 1732: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 4,722.34 ft (1,439.369 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 24, 1969, at datum 3.10 ft (0.945 m) higher.

REMARKS.--Water-discharge records poor. Diversions for irrigation of about 11,500 acres (47 km^2) above station (includes 3,700 acres or 15.0 km^2 irrigated wholly or partly from wells).

AVERAGE DISCHARGE.--41 years (water years 1941-81), 46.1 ft^3/s (1.306 m^2/s), 33,400 acre-ft/yr (41.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,800 ft^3/s (532 m^3/s) Sept. 23, 1941, from rating curve extended above 7,800 ft^3/s (221 m^3/s); maximum gage height, 16.9 ft (5.15 m) present datum, Aug. 12, 1955; no flow for extended periods.

EXTREMES OUTSIDE PERIOD OF RECORD.--The greatest flood since about 1880 occurred Sept. 23, 1929, from information by local residents (discharge, about 35,000 ft^3/s or 991 m^3/s, estimated on basis of peak at Rio Puerco). Another flood occurred Aug. 12, 1929 (discharge, 30,600 ft^3/s or 867 m^3/s, by slope-area method, from reports of State Engineer).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,620 ft^3/s (45.9 m^3/s) Sept. 7, gage height, 10.04 ft (3.060 m), no peak above base of 2,000 ft^3/s (57 m^3/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	5.0	.00	30	30	5.0
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	79	10	2.0
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	452	15	5.0
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	112	19	8.5
5	.00	.00	.00	.00	.00	.00	.00	15	.00	29	8.5	142
6	.00	.00	.00	.00	.00	.00	.00	30	.00	12	7.6	277
7	.00	.00	.00	.00	.00	.00	.00	4.7	.00	5.0	5.7	1060
8	.00	.00	.00	.00	.00	.00	.00	9.6	.00	116	14	584
9	.00	.00	.00	.00	.00	.00	.00	3.6	.00	150	17	540
10	.00	.00	.00	.00	.00	.00	.00	1.5	.00	178	90	50
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	74	96	20
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	342	61	10
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	92	133	5.0
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	378	160	1.0
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	108	90	.52
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	131	40	26
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	100	11	14
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	70	6.0	34
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	40	2.2	739
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	37	67	50
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	14	91	10
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.2	26	5.0
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.7	11	3.0
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	9.3	3.0
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.5	1.0
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	64	40	1.0
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	32	250	1.0
29	.00	.00	.00	.00	---	.00	.00	.00	.00	31	143	1.0
30	.00	.00	.00	.00	---	.00	.00	.00	.00	19	126	1.0
31	.00	---	.00	.00	---	.00	---	.00	---	10	30	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	69.40	.00	2718.90	1617.80	3600.02
MEAN	.000	.000	.000	.000	.000	.000	.000	2.24	.000	87.7	52.2	120
MAX	.00	.00	.00	.00	.00	.00	.00	30	.00	452	250	1060
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.52
AC-FT	.00	.00	.00	.00	.00	.00	.00	138	.00	5390	3210	7140

CAL YR 1980	TOTAL	9292.37	MEAN 25.4	MAX	950	MIN	.00	AC-FT	18430
WTR YR 1981	TOTAL	8006.12	MEAN 21.9	MAX	1060	MIN	.00	AC-FT	15880

08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1947 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1956 to current year.
WATER TEMPERATURES: October 1964 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1947 to current year.

REMARKS.--Samples are collected when flow is observed on this ephemeral stream.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 11,400 micromhos June 10, 1968; minimum daily, 238 micromhos July 30, 1969.
WATER TEMPERATURES: Maximum, 32.0°C July 29, 1977; minimum, 0.0°C Dec. 30, 1971.
SEDIMENT CONCENTRATIONS: Maximum daily, 267,000 mg/L July 26, 1957; minimum daily, no flow on many days of each year.
SEDIMENT LOADS: Maximum daily, 2,240,000 tons (2,030,000 tonnes) Aug. 7, 1957; minimum daily, 0 tons (0 tonnes) many days of each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,020 micromhos July 1; minimum daily, 490 micromhos May 6.
WATER TEMPERATURES: Maximum, 30.0°C July 11,19; minimum, 16.0°C, Aug. 23., Sept. 23
SEDIMENT CONCENTRATIONS: Maximum daily, 142,000 mg/L July 27, 29; minimum daily, no flow on many days.
SEDIMENT LOADS: Maximum daily, 344,000 tons (312,000 tonnes) Sept. 19; minimum daily, 0 tons (0 tonnes) on many days.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
MAY											
06...	1145	30	490	8.5	21.5	18.0	89	41	27	5.3	56
JUL											
30...	1615	23	795	7.3	36.0	28.5	--	--	--	--	--
AUG											
17...	1540	11	1640	7.1	--	28.0	300	180	88	20	130

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
MAY										
06...	2.6	4.6	48	140	24	.7	7.2	294	290	60
JUL										
30...	--	--	--	--	--	--	--	--	--	--
AUG										
17...	3.4	5.8	120	430	55	.8	18	820	200	110

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
MAY									
06...	1145	< 7.2	2100	7.8	1400	7.6	1300	.15	1.8
AUG									
20...	1017	54	1.0	22	6.6	22	6.4	--	27

RIO GRANDE BASIN
08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued
WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)
MAY											
06...	1800	30	17.0	22900	1860	72	87	100	--	--	--
JUL											
03...	0930	464	21.0	148000	185000	54	62	79	95	99	100
06...	1830	12	27.0	84400	2740	82	92	100	--	--	--
12...	1430	1350	25.0	54200	198000	55	63	88	99	100	--
13...	1600	46	28.0	66000	8200	65	76	95	99	100	--
14...	1830	275	25.0	33400	24800	61	69	86	100	--	--
20...	1330	35	28.0	82800	7830	73	82	99	100	--	--
29...	1730	31	28.0	126000	10500	70	80	97	100	--	--
30...	1615	23	28.5	111000	6890	63	82	98	100	--	--
AUG											
17...	1540	11	28.0	52800	1570	75	91	100	--	--	--
20...	1900	6.0	26.0	162000	2620	48	59	75	92	98	100
SEP											
03...	1830	5.0	26.0	69800	942	71	85	99	100	--	--
05...	1030	124	19.0	90200	30200	50	64	80	99	100	--
07...	1400	1060	21.0	84100	241000	52	66	89	99	100	--
09...	1830	404	24.0	105000	115000	47	57	74	98	100	--
21...	1800	10	25.0	62400	1690	67	79	95	99	100	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.°C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---		3020	---	1530
2								---		2530	---	1670
3								---		2890	---	1850
4								---		2130	---	1810
5								---		1970	---	1560
6								626		2020	---	1040
7								---		2050	---	2390
8								---		1830	---	2100
9								---		1100	---	1630
10								---		2150	2080	1500
11								---		1980	1860	1520
12								---		1010	1760	---
13								---		1030	2780	---
14								---		1470	2040	---
15								---		1680	1900	---
16								---		2190	1790	1950
17								---		2050	1860	1560
18								---		2170	---	2200
19								---		1950	---	2110
20								---		1910	2250	---
21								---		---	1870	1510
22								---		---	1720	1620
23								---		---	834	968
24								---		---	---	1150
25								---		---	---	---
26								---		---	---	---
27								---		---	---	---
28								---		---	766	---
29								---		2110	711	---
30								---		2390	1840	---
31								---		---	1620	---
MEAN								626		1980	1730	1670

WTR YR 1981 MEAN 1790 MAX 3020 MIN 626
NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

RIO GRANDE BASIN
08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued
WATER-QUALITY RECORDS

WATER TEMPERATURE (DEG.°C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---		22.0	---	27.0
2								---		17.0	---	28.0
3								---		21.0	---	26.0
4								---		20.0	---	25.0
5								---		22.0	---	19.0
6								17.0		27.0	---	21.0
7								---		21.0	---	21.0
8								---		18.0	---	18.0
9								---		23.0	---	24.0
10								---		24.0	22.0	25.0
11								---		30.0	22.0	25.0
12								---		25.0	24.0	---
13								---		17.5	23.0	---
14								---		25.0	24.0	---
15								---		26.0	28.0	---
16								---		26.0	24.0	22.0
17								---		24.0	25.0	23.0
18								---		21.0	---	22.0
19								---		30.0	---	18.0
20								---		29.0	26.0	---
21								---		---	25.0	25.0
22								---		---	24.0	23.0
23								---		---	16.0	16.0
24								---		---	---	24.0
25								---		---	---	---
26								---		---	---	---
27								---		---	---	---
28								---		---	24.0	---
29								---		28.0	22.0	---
30								---		28.5	29.0	---
31								---		---	24.0	---
MEAN								17.0		24.0	24.0	22.5

WTR YR 1981 MEAN 23.5 MAX 30.0 MIN 16.0
NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
2	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
3	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
4	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
5	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
6	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
7	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
8	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
9	0	.00	0	.00	0	.00	0	00	0	.00	0	.00
10	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
11	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
12	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
13	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
14	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
15	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
16	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
17	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
18	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
19	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
20	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
21	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
22	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
23	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
24	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
25	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
26	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
27	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
28	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
29	0	.00	0	.00	0	.00	0	.00	---	---	0	.00
30	0	.00	0	.00	0	.00	0	.00	---	---	0	.00
31	0	.00	---	---	0	.00	0	.00	---	---	0	.00
TOTAL	---	0.00	---	0.00	---	0.00	---	0.00	---	0.00	---	0.00

RIO GRANDE BASIN
08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued
WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	0	.00	5000	67	0	.00	112000	9070	70000	5670	86000	1160
2	0	.00	0	.00	0	.00	102000	21800	70000	1890	75000	405
3	0	.00	0	.00	0	.00	125000	160000	60000	2430	68900	930
4	0	.00	0	.00	0	.00	98200	29700	52500	2690	69000	1580
5	0	.00	7000	283	0	.00	78000	6110	34900	801	77800	39000
6	0	.00	33000	2670	0	.00	83200	2700	40500	831	66900	54500
7	0	.00	16000	203	0	.00	74500	1010	23800	366	92000	260000
8	0	.00	15500	402	0	.00	114000	50600	41100	2880	92000	145000
9	0	.00	7550	73	0	.00	32000	13000	50200	2440	106000	155000
10	0	.00	3210	22	0	.00	76000	36500	121000	31300	76300	10300
11	0	.00	0	.00	0	.00	93800	18700	111000	28800	60300	3260
12	0	.00	0	.00	0	.00	53500	49200	63500	10500	57000	1540
13	0	.00	0	.00	0	.00	50000	12400	67400	38500	44100	595
14	0	.00	0	.00	0	.00	57400	72900	77700	33600	26000	70
15	0	.00	0	.00	0	.00	32400	9450	72800	17700	11300	16
16	0	.00	0	.00	0	.00	64200	25100	53100	5730	68100	5670
17	0	.00	0	.00	0	.00	82600	22300	53100	1580	51800	1960
18	0	.00	0	.00	0	.00	71100	13400	44000	713	60200	6900
19	0	.00	0	.00	0	.00	58600	6330	26000	154	140000	344000
20	0	.00	0	.00	0	.00	81500	8140	87700	26700	125000	16900
21	0	.00	0	.00	0	.00	43200	1630	123000	30200	70900	1910
22	0	.00	0	.00	0	.00	29100	644	86300	6060	54000	729
23	0	.00	0	.00	0	.00	27100	417	80000	2380	36900	299
24	0	.00	0	.00	0	.00	0	.0	69000	1730	50100	406
25	0	.00	0	.00	0	.00	0	.0	59000	1350	49300	133
26	0	.00	0	.00	0	.00	0	.0	0	.0	24000	65
27	0	.00	0	.00	0	.00	142000	37300	7730	6670	12100	33
28	0	.00	0	.00	0	.00	97500	8420	51400	41400	7600	21
29	0	.00	0	.00	0	.00	142000	11900	102000	49600	4500	12
30	0	.00	0	.00	0	.00	112000	5750	111000	37800	3800	10
31	---	---	0	.00	---	---	80000	2160	97000	7860	---	---
TOTAL	---	0.00	---	3720.00	---	0.00	---	636631.0	---	400325.0	---	1052404

TOTAL LOAD FOR YEAR: 2093080.00 TONS.

08354000 RIO SALADO NEAR SAN ACACIA, NM

LOCATION.--Lat 34°17'50", long 106°53'59", in NW¼ sec.24, T.1 N., R.1 W., Socorro County, Hydrologic Unit 13020209, at former bridge site 0.3 mi (0.5 km) upstream from bridge 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 mi^2 (3,570 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1947 to current year.

REVISED RECORDS.--WSP 1512: 1948-49, 1955. WSP 1632: 1953.

GAGE.--Water-stage recorder. Altitude of gage is 4,765 ft (1,452 m), from topographic map. Prior to Sept. 14, 1966, at site 1.7 mi (2.7 km) downstream at different datum.

REMARKS.--Water-discharge records poor. Diversions for irrigation of about 100 acres (40 hm^2) above station.

AVERAGE DISCHARGE.--34 years, 14.5 ft^3/s (0.411 m^3/s), 10,510 acre-ft/yr (13.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,200 ft^3/s (1,030 m^3/s) July 31, 1965, gage height, 5.54 ft (1.689 m), from floodmarks, present site and datum, from rating curve extended above 900 ft^3/s (26 m^3/s) on basis of slope-area measurement of peak flow; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Another flood occurred Aug. 12, 1929 (discharge, 27,400 ft^3/s or 776 m^3/s, by slope-area method), from reports of State Engineer.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,170 ft^3/s (33.1 m^3/s) at 1400 hours July 12, gage height, 3.94 ft (1.201 m) no peak above base of 3,000 ft^3/s (85.0 m^3/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	22	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	55	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	15	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	10	.00
5	.00	.00	.00	.00	.00	.00	.00	10	.00	.00	74	.00
6	.00	.00	.00	.00	.00	.00	.00	130	.00	.00	15	.00
7	.00	.00	.00	.00	.00	.00	.00	5.0	.00	.00	10	40
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	66	67
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	10	3.0
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.0	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	15	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	154	20	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	116	5.0	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	120	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	10	.00	11
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	37	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.0	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.35	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.0	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	145.00	.00	437.00	332.65	121.00
MEAN	.000	.000	.000	.000	.000	.000	.000	4.68	.000	14.1	10.7	4.03
MAX	.00	.00	.00	.00	.00	.00	.00	130	.00	154	74	67
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	288	.00	867	660	240

CAL YR 1980 TOTAL 4786.61 MEAN 13.1 MAX 1360 MIN .00 AC-FT 9490
WTR YR 1981 TOTAL 1035.65 MEAN 2.84 MAX 154 MIN .00 AC-FT 2050

08354000 RIO SALADO NEAR SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

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

REMARKS.--Samples are collected when flow is observed on this ephemeral stream.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
MAY											
06...	1630	130	1880	8.4	30.0	23.0	540	290	160	34	240
AUG											
28...	1250	.31	1370	7.3	26.0	30.0	440	210	130	27	160

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
MAY										
06...	4.5	7.8	250	690	160	.9	13	1460	440	70
AUG										
28...	3.5	8.5	230	350	160	.8	25	1000	150	40

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAY										
06...	1500	130	23.0	86000	30200	--	--	--	--	97
JUL										
13...	1730	116	27.0	99300	31100	--	--	--	--	97
AUG										
21...	1045	.50	23.0	24600	33	84	89	97	100	--
28...	1250	.31	30.0	92500	77	--	--	--	--	100

08354500 SOCORRO MAIN CANAL NORTH AT SAN ACACIA, NM

LOCATION.--Lat 34°15'17", long 106°53'43", in SE¼NW¼ sec.1, T.1 S., R.1 W., Socorro County, Hydrologic Unit 13020203, 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.

REVISED RECORDS.--WSP 1242: 1951.

GAGE.--Water-stage recorder. Datum of gage is 4,660.16 ft (1,420.417 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 8, 1958, at site 300 ft (90 m) upstream (in old channel) at datum 0.42 ft (0.128 m) lower.

REMARKS.--Records fair. This canal is 1 of 3 channels (stations 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 08354900. Canal diverts water from right bank of Rio Grande for irrigation of about 8,000 acres (32 km^2). Alamillo Acequia and 3 other smaller ditches divert water from canal above station for irrigation of about 400 acres (2 km^2). Discharge records collected at the canal heading from October 1964 to September 1965 indicate that 7,770 acre-ft (9.58 hm^3) or 9% of the initial canal flow was diverted before reaching the regular gaging station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 274 ft^3/s (7.76 m^3/s) June 22, 1980; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	.00	.00	.00	.00	44	178	119	111	177	66	86
2	100	.00	.00	.00	.00	84	199	133	92	158	92	78
3	122	.00	.00	.00	.00	88	179	125	66	174	105	76
4	120	.00	.00	.00	.00	87	179	136	82	171	98	69
5	124	.00	.00	.00	.00	90	166	141	82	170	99	34
6	137	.00	.00	.00	.00	122	159	148	94	158	92	.00
7	139	.00	.00	.00	.00	130	154	155	117	141	100	.00
8	135	.00	.00	.00	.00	119	153	152	130	160	90	.00
9	142	.00	.00	.00	.00	134	185	151	122	166	85	4.5
10	165	.00	.00	.00	.00	149	167	149	117	175	90	15
11	168	.00	.00	.00	.00	150	149	148	125	174	99	31
12	168	.00	.00	.00	.00	155	143	154	121	153	85	70
13	161	.00	.00	.00	.00	155	136	153	89	109	87	69
14	170	.00	.00	.00	.00	147	153	156	83	136	114	65
15	171	.00	.00	.00	.00	158	161	157	77	129	110	68
16	166	.00	.00	.00	.00	167	170	147	77	138	85	66
17	153	.00	.00	.00	.00	173	160	138	76	126	89	69
18	162	.00	.00	.00	.00	162	163	150	62	127	106	71
19	151	.00	.00	.00	.00	170	190	132	56	117	94	72
20	165	.00	.00	.00	.00	164	204	121	54	104	93	67
21	162	.00	.00	.00	.00	161	177	127	53	69	92	71
22	152	.00	.00	.00	.00	160	165	119	51	55	88	75
23	148	.00	.00	.00	.00	171	162	108	50	52	91	60
24	139	.00	.00	.00	.00	177	164	107	33	50	96	59
25	145	.00	.00	.00	.00	173	165	137	8.6	47	103	55
26	150	.00	.00	.00	.00	176	164	132	11	56	104	66
27	163	.00	.00	.00	.00	180	162	137	26	81	99	75
28	159	.00	.00	.00	.00	179	164	138	45	55	89	77
29	161	.00	.00	.00	---	177	160	127	66	89	95	81
30	165	.00	.00	.00	---	178	152	87	104	83	97	79
31	120	---	.00	.00	---	180	---	80	---	73	90	---
TOTAL	4591	.00	.00	.00	.00	4560	4983	4164	2280.6	3673	2923	1708.50
MEAN	148	.000	.000	.000	.000	147	166	134	76.0	118	94.3	57.0
MAX	171	.00	.00	.00	.00	180	204	157	130	177	114	86
MIN	100	.00	.00	.00	.00	44	136	80	8.6	47	66	.00
AC-FT	9110	.00	.00	.00	.00	9040	9880	8260	4520	7290	5800	3390

CAL YR 1980	TOTAL	46559.40	MEAN	127	MAX 274	MIN	.00	AC-FT	92350
WTR YR 1981	TOTAL	28883.10	MEAN	79.1	MAX 204	MIN	.00	AC-FT	57290

08354800 RIO GRANDE CONVEYENCE CHANNEL AN SAN ACACIA, NM
(Surveillance network)

LOCATION.--Lat 34°14'54", long 106°54'04", in SW¼ sec. 1, T.1 S., R.1 W., Socorro County, Hydrologic Unit 13020203, on 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.

WATER-DISCHARGE RECORDS

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) National Geodetic Vertical Datum of 1929, (levels by Bureau of Reclamation).

REMARKS.--Water-discharge records fair. Conveyance channel, constructed in 1958, is 1 of 3 channels (stations 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 $ft^3/3$ (57 m^3/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.

EXTREMES FOR PERIOD OF RECORD: Maximum daily discharge, 1,950 ft^3/s (55.2 m^3/s) May 12, 13, 1966; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	263	1450	1630	683	451	73	22	13	.04	2.2	1.1
2	7.3	247	1460	1750	684	1010	37	23	12	.04	2.2	21
3	6.4	192	1550	1570	684	1040	33	24	12	.04	7.7	31
4	6.2	320	1550	1400	709	890	33	23	10	.04	22	6.1
5	7.0	517	1560	1250	726	658	32	23	7.1	.04	23	4.8
6	9.8	907	1550	1230	708	543	30	18	8.0	.05	15	3.4
7	17	1150	1540	1230	677	672	30	7.1	8.4	.05	6.8	2.4
8	14	1240	1580	1220	647	546	30	7.5	8.7	.05	5.5	1.9
9	11	1280	1630	1150	668	523	29	7.2	8.6	.05	3.6	1.5
10	13	1200	1510	898	699	469	27	7.2	8.3	.05	2.4	1.3
11	15	1160	1400	859	805	429	28	7.0	9.0	.06	3.6	1.1
12	38	1220	1330	800	591	398	27	7.1	7.2	.06	1.5	.98
13	47	1360	1370	774	476	395	27	7.2	4.5	.15	1.4	.60
14	22	1360	1420	740	441	313	29	7.4	4.4	.15	1.4	.48
15	23	1370	1380	709	568	233	29	7.6	4.2	.15	8.8	.43
16	53	1450	1360	704	873	428	27	7.9	3.8	5.5	21	.39
17	41	1450	1430	716	921	678	26	7.9	3.4	11	8.7	.45
18	52	1470	1510	772	929	519	27	8.7	3.1	16	38	1.4
19	42	1480	1490	791	898	377	28	8.5	2.9	12	54	5.0
20	25	1440	1520	803	591	330	39	8.3	3.0	8.0	50	3.5
21	31	1440	1540	788	439	289	29	8.1	2.9	8.0	62	15
22	23	1480	1510	672	492	313	32	9.3	2.8	4.0	60	22
23	22	1520	1480	642	751	300	31	11	2.5	2.9	56	7.1
24	21	1490	1470	674	785	265	30	11	2.8	1.2	39	10
25	21	1570	1480	716	643	194	30	11	4.9	1.2	30	27
26	21	1530	1460	746	497	189	30	13	4.8	1.4	28	6.5
27	21	1470	1400	732	415	174	29	16	5.7	1.4	26	3.7
28	20	1490	1410	713	382	171	29	15	6.1	1.4	5.9	1.5
29	21	1500	1370	714	---	159	28	14	6.1	1.6	3.7	.67
30	21	1460	1400	707	---	142	26	13	5.6	1.8	2.1	32
31	103	---	1480	708	---	172	---	13	---	2.0	2.0	---
TOTAL	782.9	36026	45590	28808	18382	13270	935	374.0	185.8	80.42	593.5	214.30
MEAN	25.3	1201	1471	929	657	428	31.2	12.1	6.19	2.59	19.1	7.14
MAX	103	1570	1630	1750	929	1040	73	24	13	16	62	32
MIN	6.2	192	1330	642	382	142	26	7.0	2.5	.04	1.4	.39
AC-FT	1550	71460	90430	57140	36460	26320	1850	742	369	160	1180	425

CAL YR 1980 TOTAL 336037.50 MEAN 918 MAX 1710 MIN 6.2 AC-FT 666500
WTR YR 1981 TOTAL 145241.92 MEAN 398 MAX 1750 MIN .04 AC-FT 288100

LOCATION.--Samples collected about 100 ft (30 m) downstream from discharge station.
PERIOD OF RECORD.--Water year 1959 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1964 to current year.
WATER TEMPERATURES: May 1959 to current year.
SUSPENDED SEDIMENT DISCHARGE: January 1959 to current year.
REMARKS.--When there is insufficient flow to sample 08354800 Rio Grande Conveyance Channel at San Acacia NM or 08354900 Rio Grande Floodway at San Acacia NM, samples are taken from 08354500 Socorro Main Canal North at San Acacia, NM.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,840 micromhos Oct. 8, 1964; minimum daily, 136 micromhos June 19, 1967.
WATER TEMPERATURES: Maximum, 36.0°C July 13, 1970 Aug. 13, 1978; minimum, 0.0°C on several days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 141,000 mg/L Aug. 10, 1959; minimum daily, no flow on many days during most years.
SEDIMENT LOADS: Maximum daily, 528,000 tons (479,000 tonnes) Aug. 28, 1972; minimum daily, 0 tons (0 tonnes) on many days during most years.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,080 micromhos Sept. 15; minimum daily, 480 micromhos Dec. 16.
WATER TEMPERATURES: Maximum, 32.0°C July 3; minimum, 2.5°C Jan 22.
SEDIMENT CONCENTRATIONS: Maximum daily, 54,000 mg/L July 18; minimum daily, 28 mg/L Apr. 12.
SEDIMENT LOADS: Maximum daily, 24,500 tons (22,200 tonnes) Nov. 9; minimum daily, 0 ton (0 tonnes) July 1-10.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
NOV											
13...	1211	1360	536	8.2	19.0	12.0	9.2	59	170	29	--
DEC											
16...	1145	1420	480	8.4	12.5	7.0	10.5	--	--	--	--
JAN											
22...	0815	720	500	8.1	-3.5	2.5	11.1	29	170	34	--
FEB											
20...	1000	675	599	8.5	6.0	8.0	9.5	--	--	--	--
MAR											
19...	1030	407	581	8.6	11.5	9.0	9.5	29	180	--	39
APR											
15...	0845	26	760	8.7	12.5	10.5	11.9	--	--	--	--
MAY											
20...	1045	8.0	800	8.8	21.5	16.0	10.3	26	250	--	45
JUN											
18...	1000	3.1	875	8.4	27.0	18.0	8.8	--	--	--	--
JUL											
15...	1000	.15	1000	8.2	28.0	21.0	--	--	--	--	--
AUG											
26...	1015	28	950	8.3	26.5	22.0	7.1	--	--	--	--
SEP											
16...	1100	.24	1050	8.2	24.0	19.5	--	--	--	--	--

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
NOV											
13...	53	8.9	44	1.5	4.8	140	90	19	.5	24	331
DEC											
16...	--	--	--	--	--	--	--	--	--	--	--
JAN											
22...	54	9.5	54	1.8	3.8	--	110	29	.4	24	372
FEB											
20...	--	--	--	--	--	--	--	--	--	--	--
MAR											
19...	56	9.4	51	1.7	4.3	140	110	27	.5	26	372
APR											
15...	--	--	--	--	--	--	--	--	--	--	--
MAY											
20...	75	14	80	2.2	5.8	200	160	42	.5	26	525
JUN											
18...	--	--	--	--	--	--	--	--	--	--	--
JUL											
15...	--	--	--	--	--	--	--	--	--	--	--
AUG											
26...	--	--	--	--	--	--	--	--	--	--	--
SEP											
16...	--	--	--	--	--	--	--	--	--	--	--

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV											
13...	--	.65	.66	.100	1.5	2.3	.910	.280	110	10	20
DEC											
16...	--	--	--	--	--	--	--	--	--	--	--
JAN											
22...	--	.61	.59	.180	.74	1.5	.390	.380	110	20	10
FEB											
20...	--	--	--	--	--	--	--	--	--	--	--
MAR											
19...	--	.74	.73	.000	1.0	1.7	.610	.420	120	10	7.4
APR											
15...	--	--	--	--	--	--	--	--	--	--	--
MAY											
20...	.010	.27	.20	.040	.79	1.1	.310	.140	180	<10	40
JUN											
18...	--	--	--	--	--	--	--	--	--	--	--
JUL											
15...	--	--	--	--	--	--	--	--	--	--	--
AUG											
26...	--	--	--	--	--	--	--	--	--	--	--
SEP											
16...	--	--	--	--	--	--	--	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)
NOV										
13...	1211	8	6	110	1	<1	10	0	50	3
MAY										
20...	1045	10	8	180	0	<1	10	0	8	1

DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV									
13...	10	35	3	.2	.0	0	0	120	<3
MAY									
20...	<10	5	2	.0	.0	0	0	20	<3

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITROGEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITROGEN, TOT IN BOTTOM MATERIAL (MG/KG AS N) (00603)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)
MAY								
20...	1045	9.7	2.3	90	550	0	0	1

DATE	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
MAY							
20...	0	3	750	10	130	.01	2

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
MAY									
20...	1045	<11	8.3	8.2	5.7	7.9	5.5	.08	2.9

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)
MAY			
20...	1045	.00	.00

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV			
13...	1211	1400	430
DEC			
16...	1145	400	1100
JAN			
22...	0815	8500	2500
FEB			
20...	1000	1300	1500
MAR			
19...	1030	310	350
APR			
15...	0845	230	580
MAY			
20...	1045	33	54
JUN			
18...	1000	10	40
AUG			
26...	1015	1800	2900

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .008 MM (70339)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .031 MM (70341)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)
OCT											
15...	1215	23	16.0	566	35	--	--	--	--	--	26
NOV											
09...	1725	1280	15.0	6820	23600	9	9	--	13	--	33
13...	1211	1360	12.0	4890	18000	7	8	--	14	--	32
DEC											
16...	1145	1420	7.0	3690	14100	3	4	5	7	10	20
JAN											
22...	1040	710	2.5	3700	7090	--	--	--	--	--	6
FEB											
20...	1000	675	8.0	6660	12100	--	--	--	--	--	--
MAR											
19...	1030	407	9.0	431	474	--	--	--	--	--	--
APR											
15...	0845	26	10.5	42	2.9	--	--	--	--	--	--
MAY											
06...	1740	13	19.0	59200	2080	60	80	--	100	--	--
20...	1245	8.3	16.0	90	2.0	--	--	--	--	--	--
JUN											
18...	0945	3.1	18.0	166	1.4	--	--	--	--	--	--
JUL											
18...	0700	16	18.0	57300	2480	65	81	--	99	--	100
AUG											
12...	0700	1.5	16.0	10500	43	72	86	--	99	--	100
22...	0700	60	20.0	48000	7780	60	78	--	95	--	100
SEP											
22...	0830	35	16.0	18000	1700	71	83	--	99	--	100
25...	0830	20	16.0	3540	191	56	68	--	82	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM (70336)
OCT										
15...	38	87	99	100	--	--	--	--	--	--
NOV										
09...	67	93	100	--	--	--	--	--	--	--
13...	62	92	99	100	--	--	--	--	--	--
DEC										
16...	49	95	100	--	--	--	--	--	--	--
JAN										
22...	20	76	98	100	--	--	--	--	--	--
FEB										
20...	--	--	--	--	3	10	50	81	94	99
MAR										
19...	--	--	--	--	22	23	25	34	67	86
APR										
15...	--	--	--	--	97	100	--	--	--	--
MAY										
06...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	97	100	--	--	--	--
JUN										
18...	--	--	--	--	90	99	100	--	--	--
JUL										
18...	--	--	--	--	--	--	--	--	--	--
AUG										
12...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
SEP										
22...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	97	100	--	--	--	--

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.°C), (ONCE-DAILY MEASUREMENT),
WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	914	1000	559	564	673	658	699	905	---	1260	1110	1110
2	938	1010	525	553	666	548	680	842	---	928	1210	982
3	893	1110	562	572	670	521	747	880	---	951	1200	1080
4	897	929	557	515	678	534	753	847	---	971	1670	1050
5	907	828	563	576	679	580	762	940	---	978	1380	1050
6	785	690	562	570	672	585	772	1970	---	979	936	1240
7	821	634	570	580	671	575	775	830	---	1010	1080	1210
8	800	605	553	594	670	570	773	772	---	1010	1160	1260
9	806	605	549	607	656	560	715	774	---	970	1200	1250
10	775	605	560	627	654	577	764	773	---	966	1180	1260
11	780	605	583	658	632	589	834	775	---	993	1220	1240
12	763	555	573	680	677	604	824	828	---	944	1260	1240
13	772	591	580	678	722	615	825	818	---	1030	1250	1900
14	782	563	588	675	731	640	844	896	---	1100	1240	1950
15	785	576	586	694	737	693	791	948	---	1090	1250	2080
16	700	561	585	699	623	647	771	948	---	1040	1240	2030
17	803	567	582	689	613	616	799	951	818	1180	1030	2000
18	818	555	566	668	596	626	808	911	901	1620	1210	1220
19	819	561	571	666	599	550	828	908	891	1630	1050	1110
20	808	555	566	662	617	614	712	910	891	1390	948	1250
21	811	560	577	651	652	635	628	980	882	1430	1730	1160
22	848	552	566	686	660	633	690	980	897	1120	1440	1140
23	871	560	574	643	600	641	750	980	1000	1150	1440	1030
24	888	552	565	651	582	654	755	954	886	1000	900	1090
25	840	550	577	653	540	674	788	960	893	987	916	1060
26	833	551	565	650	598	695	793	965	889	1010	1020	1030
27	830	555	581	664	654	725	810	910	922	1050	978	1030
28	844	550	572	660	658	697	802	905	890	1090	1000	1070
29	848	557	577	662	---	700	810	910	824	1120	1320	1070
30	847	556	574	664	---	695	849	1020	1010	1150	1270	907
31	865	---	587	676	---	697	---	---	---	1140	1310	---
MEAN	829	642	570	638	649	624	772	933	900	1110	1200	1270

WTR YR 1981 MEAN 842 MAX 2080 MIN 515

WATER TEMPERATURE (DEG.°C), (ONCE-DAILY MEASUREMENT),
WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	15.0	11.0	8.0	6.0	14.0	15.0	22.0	---	23.0	20.0	20.0
2	22.0	15.0	11.0	9.0	9.0	12.0	15.0	23.0	---	30.0	18.0	20.0
3	23.0	15.0	10.0	9.0	7.0	12.0	13.0	23.0	---	32.0	20.0	20.0
4	23.0	15.0	10.0	9.0	9.0	11.0	17.0	25.0	---	30.0	20.0	20.0
5	20.0	15.0	10.0	9.0	11.0	10.0	16.0	17.0	---	30.0	20.0	19.0
6	22.0	15.0	10.0	8.0	9.0	11.0	16.0	19.0	---	30.0	20.0	18.0
7	22.0	15.0	9.0	7.0	11.0	8.0	16.0	20.0	---	28.0	20.0	18.0
8	22.0	15.0	10.0	10.0	10.0	9.0	18.0	22.0	---	18.0	20.0	17.0
9	22.0	15.0	8.0	9.0	9.0	15.0	21.0	22.0	---	29.0	20.0	19.0
10	23.0	14.0	7.0	8.0	10.0	11.0	19.0	20.0	---	21.0	18.0	20.0
11	21.0	8.0	7.0	6.0	9.0	14.0	21.0	21.0	---	22.0	18.0	20.0
12	21.0	7.0	6.0	7.0	11.0	13.0	14.0	19.0	---	21.0	16.0	20.0
13	19.0	12.0	7.0	10.0	12.0	15.0	18.0	24.0	---	21.0	16.0	20.0
14	18.0	14.0	8.0	9.0	11.0	12.0	13.0	20.0	---	20.0	16.0	20.0
15	15.0	8.0	9.0	8.0	9.0	13.0	18.0	21.0	---	20.0	14.0	---
16	12.0	6.0	9.0	7.0	8.0	15.0	22.0	22.0	---	19.0	20.0	18.0
17	13.0	8.0	9.0	5.0	14.0	12.0	22.0	22.0	24.0	20.0	20.0	16.0
18	16.0	8.0	10.0	8.0	15.0	14.0	15.0	23.0	28.0	18.0	16.0	17.0
19	15.0	9.0	7.0	5.0	16.0	14.0	19.0	23.0	23.0	18.0	18.0	21.0
20	15.0	8.0	7.0	6.0	14.0	12.0	20.0	21.0	23.0	28.0	20.0	16.0
21	16.0	9.0	7.0	8.0	12.0	12.0	21.0	23.0	24.0	20.0	18.0	17.0
22	16.0	9.0	7.0	9.0	13.0	16.0	21.0	16.0	24.0	20.0	20.0	16.0
23	16.0	10.0	4.0	9.0	14.0	17.0	21.0	21.0	28.0	20.0	20.0	20.0
24	15.0	7.0	7.0	8.0	14.0	17.0	21.0	24.0	31.0	20.0	20.0	15.0
25	13.0	6.0	5.0	10.0	14.0	18.0	17.0	24.0	22.0	20.0	20.0	16.0
26	12.0	6.0	8.0	9.0	14.0	16.0	17.0	25.0	23.0	20.0	21.0	15.0
27	12.0	7.0	9.0	10.0	8.0	10.0	23.0	25.0	23.0	20.0	20.0	15.0
28	10.0	8.5	9.0	10.0	14.0	10.0	23.0	25.0	22.0	18.0	19.0	16.0
29	13.0	7.0	10.0	12.0	---	16.0	25.0	26.0	21.0	20.0	20.0	16.0
30	15.0	8.0	10.0	10.0	---	15.0	25.0	25.0	23.0	18.0	20.0	16.0
31	15.0	---	9.0	6.0	---	14.0	---	25.0	---	20.0	20.0	---
MEAN	17.5	10.5	8.5	8.5	11.0	13.0	18.5	22.0	24.0	22.5	19.0	18.0

WTR YR 1981 MEAN 16.0 MAX 32.0 MIN 4.0

RIO GRANDE BASIN
08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued
WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1310	29	7300	5180	2860	11200	4050	17800	2810	5180	2540	3350
2	436	8.6	5310	3540	2300	9070	3370	15900	2200	4060	2090	5700
3	774	13	4540	2350	2400	10000	2510	10600	2440	4510	700	1970
4	329	5.5	4470	3860	2410	10100	3750	14200	2650	5070	1020	2450
5	133	2.5	7490	10500	2310	9730	4150	14000	2290	4490	710	1260
6	800	21	7400	18100	2300	9630	5330	17700	2200	4210	582	853
7	160	7.3	7600	23600	2320	9650	3780	12600	1720	3140	256	464
8	710	27	7100	23800	2470	10500	2750	9060	1770	3090	225	332
9	890	26	7100	24500	1780	7830	4540	14100	1880	3390	224	316
10	4300	151	5500	17800	4310	17600	4150	10100	2410	4550	147	186
11	4730	192	6710	21000	3470	13100	3670	8510	2140	4650	123	142
12	1390	143	5130	16900	4090	14700	4460	9630	2450	3910	132	142
13	1200	152	4950	18200	2780	10300	3750	7840	2010	2580	145	155
14	1600	95	5720	21000	3010	11500	4900	9790	2610	3110	149	126
15	2960	184	3520	13000	3110	11600	3180	6090	2360	3620	107	67
16	1100	157	4450	17400	3220	11800	4010	7620	2450	5770	167	219
17	1040	115	5410	21200	1900	7340	4610	8910	1800	4480	218	399
18	2660	373	3750	14900	2030	8280	4820	10000	2560	6420	150	210
19	1550	176	3410	13600	2250	9050	3850	8220	1740	4220	186	189
20	1870	126	3600	14000	2020	8290	3150	6830	3640	5810	108	96
21	1250	105	3520	13700	1620	6740	3840	8170	2550	3020	168	131
22	803	50	3060	12200	2660	10800	3620	6570	2510	3330	119	101
23	815	48	3180	13100	4920	19700	3050	5290	2500	5070	91	74
24	1010	57	2770	11100	3110	12300	3650	6640	2880	6100	80	57
25	661	37	2850	12100	3660	14600	4490	8680	2580	4480	72	38
26	429	24	2180	9010	4050	16000	2660	5360	2200	2950	103	53
27	468	27	2700	10700	3230	12200	3310	6540	3160	3540	174	82
28	790	43	2300	9250	3190	12100	2720	5240	2760	2850	167	77
29	562	32	2880	11700	2950	10900	2300	4430	---	---	147	63
30	1040	59	3270	12900	3190	12100	3000	5730	---	---	91	35
31	11300	4680	---	---	2940	11700	3250	6210	---	---	93	43
TOTAL	---	7165.9	---	420190	---	350410	---	288360	---	117600	---	19380

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	85	17	64	3.8	156	5.5	67	.00	251	1.5	573	1.7
2	108	11	71	4.4	159	5.2	45	.00	286	1.7	10100	573
3	106	9.4	66	4.3	128	4.1	70	.00	303	6.3	6400	536
4	54	4.8	67	4.2	120	3.2	68	.00	38200	2270	581	9.6
5	47	4.1	500	31	144	2.8	58	.00	16500	1020	597	7.7
6	63	5.1	23600	1150	155	3.3	64	.00	3750	152	165	1.5
7	64	5.2	675	13	135	3.1	65	.00	500	9.2	187	1.2
8	48	3.9	263	5.3	133	3.1	66	.00	244	3.6	141	.72
9	46	3.6	202	3.9	164	3.8	62	.00	199	1.9	191	.77
10	42	3.1	166	3.2	135	3.0	62	.00	190	1.2	84	.29
11	40	3.0	158	3.0	110	2.7	83	.01	8920	87	101	.30
12	28	2.0	163	3.1	143	2.8	89	.01	6420	26	80	.21
13	31	2.3	114	2.2	166	2.0	107	.04	399	1.5	81	.13
14	37	2.9	108	2.2	129	1.5	91	.04	210	.79	71	.09
15	52	4.1	175	3.6	134	1.5	132	.05	266	6.3	65	.08
16	59	4.3	182	3.9	189	1.9	6300	94	13800	782	78	.08
17	52	3.7	170	3.6	270	2.5	44100	1310	458	11	103	.13
18	40	2.9	143	3.4	235	2.0	54000	2330	390	40	1470	5.6
19	41	3.1	121	2.8	273	2.1	42300	1370	2980	434	1850	25
20	63	6.6	119	2.7	239	1.9	22500	486	2650	358	16900	160
21	74	5.8	171	3.7	225	1.8	37500	810	6000	1000	18100	733
22	69	6.0	171	4.3	225	1.7	36700	396	48400	7840	12600	748
23	61	5.1	164	4.9	242	1.6	8100	63	36000	5440	239	4.6
24	57	4.6	157	4.7	236	1.8	1130	3.7	3200	337	210	5.7
25	66	5.3	159	4.7	214	2.8	463	1.5	3410	276	2000	146
26	57	4.6	169	5.9	205	2.7	330	1.2	6490	491	212	3.7
27	53	4.1	215	9.3	201	3.1	523	2.0	2660	187	160	1.6
28	59	4.6	235	9.5	215	3.5	270	1.0	411	6.5	140	.57
29	57	4.3	230	8.7	166	2.7	285	1.2	309	3.1	149	.27
30	56	3.9	180	6.3	145	2.2	243	1.2	395	2.2	396	34
31	---	---	137	4.8	---	---	281	1.5	315	1.7	---	---
TOTAL	---	150.4	---	1320.4	---	81.9	---	6872.45	---	20798.49	---	3001.54

TOTAL LOAD FOR YEAR: 1235331.08 TONS.

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM
(Surveillance network)

LOCATION.--Lat 34°15'23", long 106°53'18", Socorro County, Hydrologic Unit 13020203, in Sevilleta Grant, on right bank 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 mi^2 (69,330 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1936 to September 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.
REVISED RECORDS.--WSP 1242: 1951. WSP 1732: 1958(M). WRD 1969: 1967.
GAGE.--Water-stage recorder. Datum of gage is 4,654.50 ft (1,418.692 m) National Geodetic Vertical Datum of 1929. 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.
REMARKS.--Water-discharge records poor. Floodway is 1 of 3 channels (stations 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 ft^3/s or 57 m^3/s) and Socorro main canal north (about 200 ft^3/s or 6 m^3/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 (3,100 km^2); this includes Socorro main canal north which bypasses station and irrigates about 8,000 acres (32 km^2).
AVERAGE DISCHARGE.--22 years (water years 1937-58), 1,192 ft^3/s (33.76 m^3/s), 863,000 acre-ft/yr (1,060 hm^3/yr), prior to construction of conveyance channel; does not include Socorro main canal north.
15 years (water years 1959-73), 911 ft^3/s (25.80 m^3/s), 660,000 acre-ft/yr (814 hm^3/yr), combined flow of floodway, conveyance channel and Socorro main canal north prior to closure of Cochiti Dam.
8 years (water years 1974-81), 1,086 ft^3/s (30.76 m^3/s), 786,800 acre-ft/yr (970 hm^3/yr), combined flow of floodway, conveyance channel, and Socorro main canal north since closure of Cochiti Dam.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,400 ft^3/s (776 m^3/s) Aug. 5, 1936, gage height, 10.75 ft (3.277 m), site and datum then in use; no flow at times.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,690 ft^3/s (274 m^3/s) July 12, gage height, 9.71 ft (2.960 m); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	1.9	6.8	4.8	.43	6.3	6.3	12	12	42	4.1	138
2	9.0	1.4	17	7.6	.33	1.3	6.3	12	12	133	194	86
3	9.0	.67	28	.35	.33	.97	4.7	13	11	343	58	75
4	8.3	.33	27	.27	.33	.45	4.7	12	11	252	33	86
5	8.6	.41	24	.30	.45	.10	4.5	12	11	243	66	188
6	9.4	26	3.0	.33	.33	.45	4.1	150	12	136	1.1	221
7	8.8	9.1	3.6	.37	.33	1.0	4.0	721	12	96	1.0	517
8	8.3	8.4	25	.38	.45	.92	4.3	592	12	108	163	472
9	8.3	7.8	133	.41	.45	1.1	5.0	388	12	102	34	414
10	11	7.1	27	.36	.45	1.1	4.9	294	12	117	58	286
11	28	6.7	4.1	.34	.58	1.1	4.8	237	12	77	142	303
12	27	6.5	3.2	.44	.45	1.2	4.5	161	12	1840	174	254
13	21	7.2	2.8	.47	.45	1.3	4.5	121	9.8	216	186	205
14	12	6.8	2.5	.57	.33	1.9	4.8	52	9.8	378	192	237
15	12	6.7	1.8	.53	.33	1.4	5.3	30	9.8	264	100	260
16	15	6.6	1.6	.57	.84	7.2	5.0	17	9.4	218	110	350
17	12	5.5	1.9	.81	.97	12	5.0	13	8.1	239	100	374
18	15	5.6	2.0	.83	1.1	4.4	6.2	13	6.4	94	220	364
19	11	5.8	1.7	.94	1.1	5.6	6.5	13	6.0	30	180	533
20	16	5.8	2.2	1.1	.97	7.5	6.9	13	5.8	17	60	432
21	19	5.9	2.9	1.0	.84	18	25	13	5.2	2.8	74	131
22	14	7.1	1.7	.94	.84	6.0	158	13	4.8	2.5	59	110
23	13	7.4	1.4	.88	1.1	6.6	107	13	4.7	2.5	45	148
24	13	7.7	1.5	.83	1.3	4.0	101	13	4.7	1.7	36	130
25	13	22	1.4	.84	1.1	3.6	81	14	6.4	1.1	29	108
26	12	14	1.3	.71	.97	6.4	69	13	6.8	8.0	24	133
27	12	7.5	1.5	.71	.84	9.5	57	13	7.5	6.9	32	206
28	11	8.2	1.4	.70	.84	8.4	35	13	8.5	.90	336	215
29	11	8.2	1.2	.58	---	10	34	13	9.2	15	260	235
30	11	5.3	1.3	.58	---	12	15	12	25	.20	305	202
31	10	---	1.5	.50	---	14	---	12	---	.10	283	---
TOTAL	397.4	219.61	335.3	30.04	18.83	155.79	784.3	3018	288.9	4986.70	3559.2	7413
MEAN	12.8	7.32	10.8	.97	.67	5.03	26.1	97.4	9.63	161	115	247
MAX	28	26	133	7.6	1.3	18	158	721	25	1840	336	533
MIN	8.3	.33	1.2	.27	.33	.10	4.0	12	4.7	.10	1.0	75
AC-FT	788	436	665	60	37	309	1560	5990	573	9890	7060	14700
(†)	11450	71840	91100	57200	36500	35670	13290	14990	5460	17340	14040	18520

CAL YR 1980 TOTAL 294687.35 MEAN 805 MAX 5600 MIN .09 AC-FT 584500 (†) MEAN 1851 AC-FT 1343000
WTR YR 1981 TOTAL 21207.07 MEAN 58.1 MAX 1840 MIN .10 AC-FT 42060 (†) MEAN 535 AC-FT 387400

(†) COMBINED FLOW, IN ACRE-FT, AND MEAN, IN CUBIC FEET PER SECOND, OF FLOODWAY, CONVEYANCE CHANNEL AND SOCORRO MAIN CANAL NORTH.

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937-56, 1959 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July to December 1937, March 1939 to September 1956, October 1964 to current year.
WATER TEMPERATURES: October 1947 to August 1956, January 1959 to current year.
SUSPENDED SEDIMENT DISCHARGE: July 1946 to June 1956, January 1959 to current year.

REMARKS.--Additional sediment total discharge determinations were made bi-weekly when needed. When there is insufficient flow to sample 08354800 Rio Grande Conveyance Channel at San Acacia NM or 08354900 Rio Grande Floodway at San Acacia NM, samples are taken from 08354500 Socorro Main Canal North at San Acacia, NM.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,700 micromhos July 14, 1940; minimum daily, 236 micromhos May 17, 1942.
WATER TEMPERATURES: Maximum, 34.5°C July 13, 1971; minimum (1947-56, 1959-62, 1964-78), 0.0°C on many days during winter months.
SEDIMENT CONCENTRATIONS: Maximum daily, 223,000 mg/L Aug. 11 1946; minimum daily, no flow on many days of most years.
SEDIMENT LOADS: Maximum daily, 1,760,000 tons (1,600,000 tonnes) Aug. 12, 1955, minimum daily, 0 tons (0 tonnes) on many days of most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,600 micromhos July 3; minimum daily, 500 micromhos Mar. 19
WATER TEMPERATURES: Maximum, 31.0°C June 24; minimum 3.0°C on Dec. 8, 25.
SEDIMENT CONCENTRATIONS: Maximum daily, 145,000 mg/L July 24; minimum daily, 12 mg/L Feb. 15, 19.
SEDIMENT LOADS: Maximum daily, 965,000 tons (875,000 tonnes) July 12; minimum daily, .01 ton (.01 tonnes) Feb. 4, 15, Mar. 5.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
DEC											
16...	1515	1.7	650	7.9	16.0	18.0	--	--	--	--	--
JAN											
22...	1115	1.0	650	8.2	4.5	12.0	--	--	--	--	--
FEB											
20...	1045	.94	625	8.5	16.5	13.5	--	--	--	--	--
MAR											
19...	1345	7.8	500	8.7	20.0	15.5	--	--	--	--	--
APR											
15...	1200	5.2	770	8.7	18.0	18.5	--	--	--	--	--
JUN											
18...	1200	6.8	925	8.4	35.5	20.0	--	--	--	--	--
JUL											
15...	1130	284	1100	8.0	29.0	22.0	6.8	1500	360	260	110
AUG											
26...	1100	24	950	8.3	34.0	23.0	--	--	--	--	--
SEP											
16...	1300	511	700	8.0	27.0	22.0	6.2	660	230	58	70

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
DEC										
16...	--	--	--	--	--	--	--	--	--	--
JAN										
22...	--	--	--	--	--	--	--	--	--	--
FEB										
20...	--	--	--	--	--	--	--	--	--	--
MAR										
19...	--	--	--	--	--	--	--	--	--	--
APR										
15...	--	--	--	--	--	--	--	--	--	--
JUN										
18...	--	--	--	--	--	--	--	--	--	--
JUL										
15...	21	110	2.5	6.9	98	420	43	.7	13	790
AUG										
26...	--	--	--	--	--	--	--	--	--	--
SEP										
16...	13	65	2.0	5.6	170	180	24	.5	19	483

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
DEC										
16...	--	--	--	--	--	--	--	--	--	--
JAN										
22...	--	--	--	--	--	--	--	--	--	--
FEB										
20...	--	--	--	--	--	--	--	--	--	--
MAR										
19...	--	--	--	--	--	--	--	--	--	--
APR										
15...	--	--	--	--	--	--	--	--	--	--
JUN										
18...	--	--	--	--	--	--	--	--	--	--
JUL										
15...	1.1	1.3	.080	26	27	6.50	.030	350	30	--
AUG										
26...	--	--	--	--	--	--	--	--	--	--
SEP										
16...	.93	.89	.050	2.2	3.1	.000	--	100	<10	210

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLORDANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DIAZINON, TOTAL (UG/L) (39570)
SEP								
16...	1300	.00	.00	.00	.00	.00	.00	.01

DATE	DIELDRIN TOTAL (UG/L) (39380)	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALATHION, TOTAL (UG/L) (39530)	METHOXYCHLOR, TOTAL (UG/L) (39480)
SEP									
16...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL PARATHION, TOTAL (UG/L) (39600)	METHYL TRITHION, TOTAL (UG/L) (39790)	PARATHION, TOTAL (UG/L) (39540)	TOXAPHENE, TOTAL (UG/L) (39400)	TOTAL TRITHION (UG/L) (39786)	PERTHANE TOTAL (UG/L) (39034)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
SEP								
16...	.00	.00	.00	0	.00	.00	.00	.00

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
JUL			
15...	1130	29000	43000
SEP			
16...	1300	16000	15000

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .008 MM (70339)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)
NOV									
10...	1635	7.0	14.0	178	3.4	80	91	94	96
JAN									
25...	1550	.84	15.0	211	.48	79	88	91	92
MAY									
06...	1720	127	21.0	5650	1940	67	84	--	--
JUL									
02...	1045	150	22.5	38500	15600	70	79	--	100
03...	1500	633	30.0	108000	185000	58	69	--	94
15...	1130	284	22.0	37300	28600	59	75	--	96
AUG									
02...	0730	13	18.0	40600	1430	61	75	--	96
08...	0730	524	20.0	64500	91300	47	56	--	75
31...	0730	357	20.0	71000	68400	51	56	--	72
SEP									
08...	0800	3520	17.0	45400	431000	42	52	--	70
16...	1300	511	22.0	27500	37900	42	54	--	74
19...	1400	553	21.0	67400	101000	61	69	--	90

DATE	SED. SUSP. FALL DIAM. % FINER THAN .031 MM (70341)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)
NOV									
10...	97	--	--	--	--	99	100	--	--
JAN									
25...	93	--	--	--	--	97	98	99	100
MAY									
06...	--	--	--	--	--	99	100	--	--
JUL									
02...	--	--	--	--	--	--	--	--	--
03...	--	100	--	--	--	--	--	--	--
15...	--	99	99	100	--	--	--	--	--
AUG									
02...	--	100	--	--	--	--	--	--	--
08...	--	94	96	98	100	--	--	--	--
31...	--	95	100	--	--	--	--	--	--
SEP									
08...	--	91	98	100	--	--	--	--	--
16...	--	96	100	--	--	--	--	--	--
19...	--	99	99	100	--	--	--	--	--

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. FALL DIAM. % FINER THAN 2.00 MM (80163)
JUL										
02...	1045	150	38500	15600	3	5	45	93	99	100

TOTAL SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SEDI-MENT, DISCH, SUSP. + BED MA-TERIAL (T/DAY) (80156)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOC-ITY, MEAN (FPS) (00055)
JUL									
02...	1045	150	22.5	38500	15600	21100	61.0	1.5	1.60
15...	1130	284	22.0	37300	28600	29300	95.0	.95	3.20
SEP									
16...	1300	511	22.0	27500	37900	40500	135	1.0	3.60

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	879	745	750	776	760	705	714	879	---	885	944	1150
2	910	738	788	781	742	729	720	835	---	1610	1070	1090
3	896	667	677	805	739	640	742	865	---	2600	1320	1080
4	864	654	657	706	740	634	744	840	---	1340	1640	727
5	870	645	640	775	739	639	750	1240	---	880	1560	702
6	846	707	690	790	742	632	763	1080	---	768	940	940
7	789	673	704	807	753	631	766	768	---	863	1000	1230
8	795	664	675	808	755	627	755	739	---	867	841	1350
9	802	669	556	813	746	568	709	740	---	828	978	1030
10	819	671	649	814	754	626	748	743	---	839	1120	1010
11	822	684	703	817	738	646	800	747	---	1430	1360	970
12	752	596	705	811	731	654	827	797	---	1220	1590	888
13	743	663	719	819	745	657	803	810	---	1030	1160	1000
14	800	673	726	817	735	677	811	892	---	1030	2080	1000
15	819	685	715	818	741	713	777	945	---	1320	1750	1070
16	761	677	707	828	730	705	757	948	---	1230	1360	962
17	812	686	721	842	736	681	774	952	802	1310	1160	1000
18	820	684	725	823	732	685	789	917	870	1720	1050	1800
19	824	693	759	831	735	586	799	916	896	1650	1310	1840
20	816	687	760	833	751	657	704	915	884	1370	936	1530
21	813	697	775	848	750	662	630	984	891	1250	1760	1190
22	816	690	780	846	736	672	691	984	876	1200	1440	1040
23	827	699	794	708	745	664	747	990	910	1080	1350	792
24	850	693	790	767	737	688	751	979	888	994	987	787
25	845	655	798	785	620	690	797	978	930	1160	980	939
26	835	706	798	755	699	694	795	978	900	872	1030	918
27	850	715	813	766	714	723	804	878	918	1060	958	1380
28	800	727	803	757	714	701	817	875	893	942	1030	1090
29	812	751	816	745	---	710	804	876	1010	2090	877	1070
30	814	746	811	756	---	707	840	1010	1010	1090	1470	918
31	856	---	819	759	---	715	---	---	---	967	1530	---
MEAN	824	688	736	794	734	668	764	903	906	1210	1240	1080

WTR YR 1981 MEAN 880 MAX 2600 MIN 556

TEMPERATURE, WATER (DEG.°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	15.0	10.0	12.0	9.0	18.0	16.0	22.0	---	24.0	20.0	20.0
2	22.0	16.0	11.0	13.0	14.0	14.0	15.0	23.0	---	30.0	18.0	20.0
3	23.0	15.0	10.0	14.0	10.0	15.0	14.0	23.0	---	30.0	20.0	20.0
4	23.0	15.0	10.0	12.0	13.0	12.0	18.0	25.0	---	30.0	20.0	20.0
5	22.0	15.0	10.0	11.0	16.0	12.0	18.0	15.0	---	29.0	20.0	19.0
6	22.0	15.0	10.0	10.0	13.0	10.0	18.0	21.0	---	30.0	20.0	18.0
7	22.0	15.0	9.0	10.0	14.0	11.0	17.0	22.0	---	28.0	20.0	18.0
8	22.0	15.0	3.0	15.0	16.0	13.0	18.0	21.0	---	18.0	20.0	17.0
9	22.0	15.0	8.0	14.0	12.0	14.0	20.0	21.0	---	28.0	20.0	18.0
10	23.0	14.0	10.0	12.0	11.0	11.0	17.0	20.0	---	21.0	18.0	20.0
11	21.0	8.0	11.0	7.0	14.0	14.0	23.0	21.0	---	22.0	18.0	20.0
12	21.0	7.0	10.0	9.0	15.0	13.0	17.0	21.0	---	21.0	16.0	20.0
13	19.0	14.0	9.0	13.0	15.0	18.0	18.0	25.0	---	21.0	16.0	20.0
14	18.0	14.0	10.0	15.0	15.0	14.0	12.0	20.0	---	20.0	16.0	20.0
15	15.0	8.0	13.0	12.0	15.0	18.0	17.0	21.0	---	20.0	13.0	---
16	12.0	6.0	15.0	8.0	12.0	16.0	22.0	22.0	---	19.0	20.0	18.0
17	13.0	8.0	14.0	7.0	17.0	11.0	21.0	22.0	24.0	20.0	20.0	16.0
18	15.0	8.0	14.0	10.0	20.0	13.0	15.0	25.0	28.0	18.0	16.0	17.0
19	16.0	9.0	11.0	7.0	21.0	14.0	19.0	23.0	23.0	18.0	18.0	21.0
20	15.0	8.0	11.0	9.0	21.0	12.0	20.0	20.0	23.0	28.0	20.0	16.0
21	16.0	9.0	11.0	13.0	16.0	12.0	21.0	22.0	24.0	20.0	18.0	17.0
22	16.0	9.0	11.0	15.0	16.0	16.0	21.0	16.0	24.0	20.0	20.0	16.0
23	16.0	10.0	5.0	14.0	19.0	18.0	21.0	22.0	29.0	20.0	20.0	20.0
24	15.0	7.0	11.0	11.0	17.0	18.0	21.0	24.0	31.0	20.0	20.0	15.0
25	13.0	6.0	3.0	15.0	18.0	20.0	17.0	25.0	22.0	20.0	20.0	16.0
26	12.0	6.0	13.0	15.0	15.0	15.0	17.0	26.0	23.0	20.0	21.0	15.0
27	12.0	7.0	14.0	16.0	10.0	11.0	23.0	26.0	23.0	20.0	20.0	15.0
28	10.0	8.5	14.0	15.0	18.0	8.0	23.0	25.0	22.0	18.0	19.0	16.0
29	13.0	7.0	15.0	16.0	---	15.0	25.0	25.0	21.0	20.0	20.0	16.0
30	15.0	8.0	13.0	15.0	---	15.0	25.0	26.0	23.0	18.0	20.0	16.0
31	15.0	---	13.0	8.0	---	16.0	---	26.0	---	20.0	20.0	---
MEAN	17.5	10.5	10.5	12.0	15.0	14.0	19.0	22.5	24.5	22.5	19.0	18.0

WTR YR 1981 MEAN 16.5 MAX 31.0 MIN 3.0

RIO GRANDE BASIN
08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued
WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	368	8.6	166	.85	97	1.8	99	1.4	29	.03	99	4.0
2	280	6.8	235	.89	76	3.5	110	2.5	38	.03	240	.84
3	187	4.5	140	.25	121	9.1	80	.08	23	.02	84	.22
4	100	2.2	113	.10	118	8.6	92	.07	15	.01	42	.05
5	114	2.6	109	.12	148	9.6	113	.09	16	.02	38	.01
6	164	4.2	790	92	127	1.0	106	.09	30	.03	47	.06
7	155	3.7	270	6.6	128	1.2	148	.15	23	.02	48	.13
8	82	1.8	207	4.7	131	8.9	147	.15	24	.03	49	.12
9	84	1.9	196	4.1	376	135	196	.22	22	.03	104	.31
10	200	5.9	181	3.5	208	22	169	.16	29	.04	73	.22
11	239	18	147	2.7	82	.91	149	.14	26	.04	56	.17
12	164	12	152	2.7	51	.44	173	.21	19	.02	58	.19
13	201	11	155	3.0	41	.31	188	.24	15	.02	335	1.2
14	231	7.5	153	2.8	58	.39	105	.16	18	.02	145	.74
15	143	4.6	215	3.9	40	.19	129	.18	12	.01	76	.29
16	544	23	148	2.6	81	.35	188	.29	16	.04	80	1.6
17	133	4.3	115	1.7	58	.30	163	.36	18	.05	72	2.3
18	97	3.9	117	1.8	49	.26	134	.30	16	.05	69	.82
19	69	2.0	129	2.0	141	.65	145	.37	12	.04	68	1.0
20	78	3.4	132	2.1	115	.68	150	.45	15	.04	81	1.8
21	82	4.2	99	1.6	98	.77	145	.39	28	.06	118	6.5
22	75	2.8	108	2.1	97	.45	158	.40	17	.04	192	3.6
23	73	2.6	120	2.4	84	.32	180	.43	42	.12	138	2.5
24	80	2.8	130	2.7	79	.32	200	.45	25	.09	65	.70
25	112	3.9	160	9.5	62	.23	196	.44	14	.04	54	.52
26	107	3.5	163	6.2	68	.24	45	.09	17	.04	74	1.3
27	128	4.1	155	3.1	62	.25	44	.08	23	.05	135	3.5
28	82	2.4	119	2.6	76	.29	34	.06	24	.05	109	2.5
29	84	2.5	106	2.3	116	.38	21	.03	---	---	105	2.8
30	86	2.6	119	1.7	102	.36	33	.05	---	---	102	3.3
31	109	2.9	---	---	79	.32	36	.05	---	---	93	3.5
TOTAL	---	166.2	---	172.61	---	209.11	---	10.08	---	1.08	---	46.79

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	55	.94	156	5.1	146	4.7	4540	750	6000	66	24800	9240
2	102	1.7	112	3.6	155	5.0	34100	12200	78200	49900	647	150
3	82	1.0	67	2.4	180	5.3	74600	76300	45000	7050	25000	5060
4	42	.53	79	2.6	188	5.6	37000	25200	25000	2230	25400	5900
5	36	.44	230	7.5	193	5.7	16300	10700	50200	14400	20900	10600
6	51	.56	4280	2260	203	6.6	3240	1190	332	1.0	15500	9250
7	58	.63	4930	9600	195	6.3	9750	2530	337	.9	67500	94200
8	57	.66	316	505	211	6.8	17900	5220	39700	17500	4230	5390
9	60	.81	225	236	184	6.0	24500	6750	1660	152	22100	24700
10	58	.77	224	178	162	5.2	30300	9880	43100	6750	8100	6250
11	50	.65	236	151	160	5.2	35800	7440	87100	39300	4810	3940
12	63	.77	235	102	159	5.2	90900	965000	89600	60500	5790	3970
13	54	.66	242	79	152	4.0	62000	36200	54700	27700	3170	1750
14	45	.58	190	27	150	4.0	89000	103000	76600	39700	3220	2060
15	59	.84	229	19	145	3.8	31000	22100	35400	9560	31300	22000
16	183	2.5	249	11	142	3.6	38500	22700	36000	10700	16500	15600
17	144	1.9	250	8.8	181	4.0	103000	74000	13100	3540	7350	7420
18	55	.92	164	5.8	191	3.3	65000	16500	92000	54600	59000	58000
19	59	1.0	142	5.0	330	5.3	46300	3750	67300	32700	65500	94300
20	70	1.3	140	4.9	520	8.1	44900	2060	16300	2640	61700	72000
21	167	11	125	4.4	267	3.7	72000	544	61900	12400	20500	7250
22	226	96	146	5.1	250	3.2	91800	620	45400	7230	20000	5940
23	190	55	132	4.6	314	4.0	95000	641	34000	4130	13100	5230
24	191	52	223	7.8	320	4.1	145000	666	2970	289	12500	4390
25	189	41	160	6.0	275	4.8	108000	321	1530	120	11600	3380
26	161	30	101	3.5	140	2.6	50000	1080	1530	99	16200	5820
27	155	24	129	4.5	131	2.7	23100	430	7450	644	32800	18200
28	201	19	144	5.1	138	3.2	1800	4	46600	45800	16000	9290
29	155	14	303	11	260	6.5	55200	3130	56500	39700	9700	6150
30	80	3.2	196	6.4	1230	359	4600	3	65000	53500	415	226
31	---	---	144	4.7	---	---	1110	0.3	68000	52000	---	---
TOTAL	---	364.36	---	13276.8	---	497.5	---	1410909.3	---	594901.9	---	517656

TOTAL LOAD FOR YEAR: 2538211.73 TONS.

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM

(National stream-quality accounting network, surveillance network, and radiochemical network station)

LOCATION.--Lat 33°41'07", long 106°59'40", Socorro County, Hydrologic Unit 13020203, 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.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1958 to September 1959, October 1969 to current year. Prior to October 1964 monthly discharge only published with record for Rio Grande at San Marcial (station 08358500).

GAGE.--Water-stage recorder. Datum of gage is 4,454.00 ft (1,357.579 m) National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to Apr. 29, 1958, at datum 4.19 ft (1.277 m) higher.

REMARKS.--Water-discharge records good. Original design and plan was for conveyance channel to carry all flows up to about 2,000 ft^3/s (57 m^3/s). Conveyance channel is 1 of 2 channels (station 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 station 08358400.

EXTREMES FOR PERIOD OF RECORD (SINCE 1954).--Maximum daily discharge, 2,200 ft^3/s (62.3 m^3/s) May 14, 1966; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.4	2.3	2.8	3.0	2.6	3.1	76	49	3.2	12	32
2	1.7	2.7	2.3	2.9	3.0	2.8	3.1	79	45	3.6	9.0	27
3	1.6	2.9	2.3	2.9	2.0	3.0	3.4	79	42	3.8	8.5	23
4	1.6	3.1	2.3	2.9	2.0	2.8	3.6	82	37	4.4	8.2	19
5	1.8	3.1	2.3	2.9	2.2	2.6	3.8	84	35	12	9.3	19
6	1.6	3.4	2.3	2.9	2.2	2.7	5.6	85	33	24	9.3	22
7	1.6	4.1	2.3	2.9	2.1	2.7	13	85	28	32	9.0	38
8	1.6	4.6	2.4	2.9	2.1	2.7	14	85	24	39	8.8	51
9	1.8	4.4	2.3	2.9	2.4	2.5	14	87	20	39	10	54
10	1.6	4.3	2.3	2.9	2.3	2.5	14	88	17	38	14	54
11	1.3	4.3	2.3	2.9	2.2	2.7	15	89	15	41	18	53
12	1.2	4.1	2.3	3.1	2.3	2.5	15	93	14	48	20	53
13	1.5	4.1	2.3	3.2	2.5	2.6	16	94	11	55	21	54
14	1.5	4.0	2.5	2.9	2.5	2.6	17	96	9.0	61	23	55
15	1.5	4.2	2.5	2.9	2.6	2.5	17	99	7.3	59	25	56
16	1.3	3.7	2.5	2.9	2.6	2.4	16	97	6.0	54	26	57
17	1.4	3.1	2.6	2.9	2.8	2.6	16	98	4.5	50	27	60
18	1.5	2.3	2.8	2.9	2.7	2.8	16	99	3.5	46	29	60
19	1.5	2.3	2.7	2.9	2.7	2.9	16	100	3.4	42	28	57
20	1.6	2.2	2.7	2.9	2.7	3.0	19	99	3.4	44	26	55
21	1.6	2.1	2.7	2.9	2.8	2.9	27	99	4.0	51	23	54
22	1.8	2.1	2.8	2.7	2.7	3.2	27	97	3.7	52	19	52
23	1.8	2.1	2.8	2.7	2.8	3.5	33	94	3.8	45	23	51
24	1.8	2.1	2.7	2.5	3.1	3.5	41	91	3.9	38	37	49
25	1.7	2.1	2.7	2.5	3.0	3.6	49	87	3.8	35	37	45
26	1.8	2.1	2.8	2.5	2.9	3.6	55	85	3.8	30	34	43
27	1.9	2.1	2.7	2.3	3.1	3.6	58	82	3.9	27	29	42
28	2.0	2.1	2.8	2.3	2.9	3.6	65	76	3.8	22	31	40
29	2.1	2.2	2.8	2.3	---	3.8	70	70	3.5	19	39	36
30	2.3	2.3	2.7	2.1	---	4.1	74	61	3.1	17	41	33
31	2.3	---	2.9	2.6	---	3.8	---	55	---	14	39	---
TOTAL	52.1	90.6	78.7	85.8	72.2	92.7	739.6	2691	444.4	1049.0	693.1	1344
MEAN	1.68	3.02	2.54	2.77	2.58	2.99	24.7	86.8	14.8	33.8	22.4	44.8
MAX	2.3	4.6	2.9	3.2	3.1	4.1	74	100	49	61	41	60
MIN	1.2	2.1	2.3	2.1	2.0	2.4	3.1	55	3.1	3.2	8.2	19
AC-FT	103	180	156	170	143	184	1470	5340	881	2080	1370	2670

CAL YR 1980 TOTAL 5658.74 MEAN 15.5 MAX 152 MIN .15 AC-FT 11220
WTR YR 1981 TOTAL 7433.20 MEAN 20.4 MAX 100 MIN 1.2 AC-FT 14740

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1954 to current year.
WATER TEMPERATURES: March 1954 to current year.
SUSPENDED SEDIMENT DISCHARGE: March 1954 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,860 micromhos Oct. 25, 1956; minimum daily, 305 micromhos June 14, 1980.
WATER TEMPERATURES: Maximum, 35.0°C on several days during 1955, 1963, and 1971; minimum, 0.0°C on many days during December and January of most years.
SEDIMENT CONCENTRATIONS: Maximum daily, 144,000 mg/L Sept. 19, 1971; minimum daily, no flow on many days during most years.
SEDIMENT LOADS: Maximum daily, 638,000 tons (579,000 tonnes) Aug. 28 1972; minimum daily, 0 tons (0 tonnes) on many days during most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,660 micromhos Oct. 15; minimum daily, 642 micromhos Feb. 21.
WATER TEMPERATURES: Maximum, 30.0° July 19, 25, minimum, 4.0°C Nov. 20, 26; Jan. 15, 17, 22, 27.
SEDIMENT CONCENTRATIONS: Maximum daily, 455 mg/L July 20; minimum daily, 16 mg/L May 20,22.
SEDIMENT LOADS: Maximum daily, 54 tons (50 tonnes) July 20; minimum daily, 0.17 tons (0.15 tonne) Dec. 26-28, Jan. 1, Feb. 11.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
NOV										
13...	1513	4.1	1400	7.8	19.5	14.0	--	11.6	--	--
DEC										
17...	1300	2.9	1220	8.1	16.5	10.0	--	10.0	--	--
JAN										
20...	1515	3.0	1300	7.7	5.0	8.0	--	--	--	--
FEB										
19...	1345	2.7	1300	8.1	19.5	14.0	--	--	--	--
MAR										
17...	1415	2.4	1300	8.4	21.0	14.5	--	--	--	--
APR										
14...	1415	17	1500	8.3	13.5	14.0	--	--	--	--
MAY										
21...	1300	100	1100	8.2	25.5	20.5	2.8	11.3	310	99
JUN										
17...	1545	4.1	1400	8.0	34.0	22.0	6.0	8.3	400	130
JUL										
16...	1400	54	1180	8.0	33.0	28.0	--	--	--	--
AUG										
25...	1100	38	1200	8.0	29.0	22.0	11	7.8	300	89

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
NOV									
13...	--	--	--	--	--	--	--	--	--
DEC									
17...	--	--	--	--	--	--	--	--	--
JAN									
20...	--	--	--	--	--	--	--	--	--
FEB									
19...	--	--	--	--	--	--	--	--	--
MAR									
17...	--	--	--	--	--	--	--	--	--
APR									
14...	--	--	--	--	--	--	--	--	--
MAY									
21...	94	18	120	3.0	7.0	210	220	78	.5
JUN									
17...	120	24	160	3.5	8.4	270	330	130	.4
JUL									
16...	--	--	--	--	--	--	--	--	--
AUG									
25...	90	18	130	3.4	7.0	210	270	74	.0

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
NOV									
13...	--	--	--	--	--	--	--	--	--
DEC									
17...	--	--	--	--	--	--	--	--	--
JAN									
20...	--	--	--	--	--	--	--	--	--
FEB									
19...	--	--	--	--	--	--	--	--	--
MAR									
17...	--	--	--	--	--	--	--	--	--
APR									
14...	--	--	--	--	--	--	--	--	--
MAY									
21...	18	712	682	.00	.010	.01	.00	.050	.070
JUN									
17...	23	1010	958	.05	.020	.07	.07	.120	.090
JUL									
16...	--	--	--	--	--	--	--	--	--
AUG									
25...	22	765	739	--	--	.12	.12	.110	.110

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)
NOV									
13...	--	--	--	--	--	--	--	--	--
DEC									
17...	--	--	--	--	--	--	--	--	--
JAN									
20...	--	--	--	--	--	--	--	--	--
FEB									
19...	--	--	--	--	--	--	--	--	--
MAR									
17...	--	--	--	--	--	--	--	--	--
APR									
14...	--	--	--	--	--	--	--	--	--
MAY									
21...	1.3	1.3	.230	30	100	--	29	.5	.00
JUN									
17...	1.1	1.3	.120	--	--	7.2	--	--	--
JUL									
16...	--	--	--	--	--	--	--	--	--
AUG									
25...	1.2	1.4	.140	< 10	160	--	6.1	.1	.00

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)
MAY										
21...	1300	6	6	10	80	0	<1	10	0	0
AUG										
25...	1100	6	4	0	83	0	<1	10	10	0

DATE	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)
MAY										
21...	< 3	5	1	280	30	6	2	140	100	.0
AUG										
25...	< 3	9	3	770	<10	8	5	270	160	.1

RIO GRANDE BASIN
08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued
WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
MAY										
21...	.0	6	3	3	0	0	0	1	80	60
AUG										
25...	.0	--	3	2	0	0	0	0	20	16

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO-GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO-GEN,TOT IN BOT-TOM MA-TERIAL (MG/KG AS N) (00603)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)
MAY								
21...	1300	.0	.8	196	470	0	0	1

DATE	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)
MAY							
21...	0	3	700	10	170	.01	5

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
MAY									
21...	1300	<13	<.5	7.4	.8	7.2	.8	.06	1.9

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-AZINON, TOTAL (UG/L) (39570)	DI-ELDRIN TOTAL (UG/L) (39380)
MAY									
21...	1300	--	--	--	--	--	--	--	--
AUG									
25...	1100	.00	.00	.00	.00	.00	.00	.00	.00

DATE	ENDO-SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METHYL PARA-THION, TOTAL (UG/L) (39600)
MAY									
21...	--	--	--	--	--	--	--	--	--
AUG									
25...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL TRI-THION, TOTAL (UG/L) (39790)	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PER-THANE TOTAL (UG/L) (39034)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
MAY									
21...	--	--	--	--	.00	.00	--	--	--
AUG									
25...	.00	.00	0	.00	--	--	.00	.00	.00

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
MAY			
21...	1300	170	54
JUN			
17...	1545	74	46
AUG			
25...	1100	38	35

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
IDENTIFICATION OF PHYTOPLANKTON

DATE	MAY 21,81		JUN 17,81		AUG 25,81	
TIME	1300		1545		1100	
TOTAL CELLS/ML	1100		7200		7500	
DIVERSITY: DIVISION	1.8		1.1		1.7	
.CLASS	1.8		1.1		1.7	
..ORDER	2.3		1.5		2.5	
...FAMILY	2.6		1.5		3.2	
....GENUS	2.6		1.5		3.8	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)						
.BACILLARIOPHYCEAE						
..ACHNANTHALES						
...ACHNANTHACEAE						
....ACHNANTHES	14	1	--	-	--	-
....COCCONEIS	210#	19	--	-	*	0
..BACILLARIALES						
...NITZSCHIACEAE						
....NITZSCHIA	70	6	140	2	290	4
..EPITHEMIALES						
...EPITHEMIACEAE						
....DENTICULA	--	-	--	-	*	0
..EUPODISCALES						
...COSCINODISCACEAE						
....CYCLOTELLA	28	3	4900#	67	780	10
....MELOSIRA	--	-	--	-	*	0
..FRAGILARIALES						
...FRAGILARIACEAE						
....SYNEDRA	14	1	--	-	--	-
..NAVICULALES						
...CYMBELLACEAE						
....AMPHORA	--	-	--	-	*	0
...ENTOMONEIDACEAE						
....PLAGIOTROPIS	--	-	--	-	*	0
...NAVICULACEAE						
....CALONEIS	--	-	--	-	*	0
....NAVICULA	--	-	--	-	130	2
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHLOROCOCCACEAE						
....SCHROEDERIA	70	6	--	-	*	0
...DICTYOSPHAERIACEAE						
....DICTYOSPHAERIUM	--	-	--	-	290	4
...MICRACTINIACEAE						
....MICRACTINIUM	--	-	--	-	250	3
...OOCYSTACEAE						
....ANKISTRODESMUS	--	-	--	-	240	3
....KIRCHNERIELLA	--	-	--	-	310	4
....OOCYSTIS	--	-	--	-	72	1
....SELENASTRUM	--	-	--	-	*	0
...SCENEDESMACEAE						
....CRUCIGENIA	--	-	--	-	72	1
....GLOEOACTINIUM	--	-	--	-	510	7
....SCENEDESMUS	--	-	--	-	1300#	18
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CARTERIA	--	-	--	-	54	1
....CHLAMYDOMONAS	56	5	46	1	340	5
CHRYSOPHYTA						
.XANTHOPHYCEAE						
..MISCHOCOCCALES						
...SCIADACEAE						
....CENTRITRACTUS	--	-	--	-	*	0
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
....CHROOMONAS	420#	38	--	-	*	0
...CRYPTOMONADACEAE						
....CRYPTOMONAS	70	6	140	2	180	2
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	--	-	--	-	580	8
....ANACYSTIS	--	-	690	10	400	5
..OSCILLATORIALES						
...OSCILLATORIACEAE						
....OSCILLATORIA	140	13	1200#	17	1400#	19
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	--	-	92	1	*	0
....TRACHELOMONAS	--	-	--	-	*	0

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)
OCT									
15...	1435	1.5	17.0	19	.08	94	100	--	--
MAY									
21...	1300	100	20.5	13	3.5	72	88	99	100
JUN									
17...	1440	4.1	22.0	55	.61	50	90	100	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1580	1040	1470	1590	1490	1260	---	---	1480	---	1120	1250
2	1550	1340	1410	1310	---	1360	---	1170	1390	---	1130	1250
3	1510	1510	1490	1390	---	1400	---	1360	1470	---	1140	1250
4	1600	1550	1460	1390	---	1440	---	1390	---	---	1090	1220
5	1590	1570	1470	1420	---	1430	---	1400	---	---	1160	1220
6	1610	1560	1500	1410	---	1470	---	1400	---	---	1180	1190
7	1580	1540	1540	1410	---	1250	---	1410	---	---	1090	1200
8	1590	1540	1480	1460	---	1390	---	1390	---	---	1160	1120
9	---	1520	1480	1410	---	1420	---	1420	---	---	1170	1020
10	---	1530	1470	1400	1280	1400	---	1440	---	---	1200	1000
11	1180	1540	1460	1420	1430	1450	---	1440	---	---	1140	1050
12	1390	---	1410	1420	1380	1440	---	1450	---	---	1120	1050
13	1500	1370	1450	1400	1440	1110	---	1420	---	---	1110	1140
14	1480	1440	1520	---	1450	1200	1500	1420	---	---	1100	1120
15	1660	1420	1490	1450	1440	1340	---	1400	---	---	1180	1180
16	1530	1470	1510	---	1470	1340	---	1350	---	1250	1180	1130
17	1480	1480	1550	1300	846	1330	---	1350	1320	1200	1150	1000
18	1450	1450	1560	1380	786	1420	---	1350	---	1240	1150	---
19	1480	1480	1560	1420	774	1420	---	1360	---	1240	1240	1180
20	1420	1470	1510	1420	766	1310	---	1350	---	1240	1190	995
21	1410	1480	1530	1440	642	1440	---	1280	---	1280	1090	1120
22	1510	1470	1540	1450	1370	1390	---	1340	---	1280	1180	1080
23	1520	1470	1520	1440	761	1430	---	1330	---	1340	1200	1140
24	1030	1470	1560	1430	---	1370	---	1310	---	1350	1170	1170
25	1460	1470	1540	1420	---	1300	---	1320	---	1360	1230	1200
26	1480	1460	1550	1440	---	---	---	1340	---	1370	1280	1180
27	1500	1480	1580	1490	---	---	---	1280	---	1390	1300	1190
28	1520	1480	1590	1500	---	---	---	1460	---	881	1310	1170
29	1500	1460	1580	1500	---	---	---	1390	---	1140	1330	1210
30	1530	1470	1580	1400	---	---	---	1480	---	1180	1340	1200
31	1460	---	1580	1400	---	---	---	1490	---	1150	1280	---
MEAN	1490	1470	1510	1420	1160	1360	1500	1380	1420	1240	1180	1150

WTR YR 1981 MEAN 1350 MAX 1660 MIN 642

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

RIO GRANDE BASIN
08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued
WATER-QUALITY RECORDS

TEMPERATURE, WATER (DEG.°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.5	14.0	5.0	12.0	6.0	13.5	---	---	20.0	---	23.0	20.0
2	21.0	15.0	10.0	8.5	---	12.0	---	16.0	23.0	---	27.0	21.0
3	17.0	14.0	10.0	7.0	---	14.0	---	16.0	18.0	---	28.0	20.0
4	18.5	15.0	9.0	10.0	---	14.0	---	22.0	---	---	23.0	25.0
5	19.0	15.5	6.0	9.0	---	7.0	---	20.0	---	---	24.0	24.0
6	21.0	16.0	9.5	8.0	---	10.0	---	19.0	---	---	20.0	21.5
7	21.5	16.0	10.0	8.0	---	11.0	---	22.0	---	---	22.0	21.0
8	20.0	16.0	12.0	9.0	---	13.0	---	21.0	---	---	23.5	20.0
9	21.0	17.0	9.0	8.0	---	12.0	---	20.0	---	---	21.0	20.0
10	16.0	16.0	6.5	5.0	8.0	11.0	---	22.0	---	---	20.0	24.0
11	16.0	17.0	8.0	9.0	9.0	15.0	---	20.0	---	---	24.0	21.0
12	15.0	13.0	9.0	5.0	8.0	12.0	---	22.0	---	---	20.0	25.0
13	14.0	10.0	6.0	5.0	7.0	9.0	---	22.0	---	---	20.0	21.0
14	16.0	6.0	10.0	---	5.5	12.0	14.0	19.0	---	---	20.0	18.0
15	17.0	4.5	9.0	4.0	6.0	12.0	---	18.0	---	---	26.0	23.0
16	15.0	5.5	10.0	---	7.0	14.0	---	19.0	---	24.0	22.0	18.0
17	15.0	8.0	11.0	4.0	5.0	13.0	---	18.0	22.0	26.0	20.5	20.0
18	12.0	6.5	10.0	5.0	8.0	12.0	---	17.0	---	28.5	22.0	---
19	13.5	7.0	10.0	7.0	6.5	9.0	---	19.5	---	30.0	23.0	21.0
20	13.0	4.0	11.5	4.5	5.0	14.0	---	20.0	---	28.5	27.0	18.0
21	13.0	8.5	11.0	6.0	9.0	13.0	---	19.0	---	24.0	28.0	19.0
22	14.0	6.0	11.0	4.0	10.0	9.0	---	20.0	---	26.0	28.0	18.0
23	14.0	8.0	10.0	4.5	5.0	14.5	---	22.0	---	24.5	22.0	18.0
24	15.0	5.0	8.5	7.0	---	13.0	---	20.0	---	28.0	20.0	21.0
25	15.0	5.0	11.0	7.0	---	12.0	---	19.0	---	30.0	22.0	18.0
26	14.0	4.0	8.0	4.5	---	---	---	19.0	---	29.0	20.0	22.0
27	13.0	6.0	9.5	4.0	---	---	---	17.0	---	23.0	21.0	21.0
28	14.0	6.5	9.0	5.5	---	---	---	20.0	---	29.5	25.0	17.0
29	16.0	8.0	10.5	6.0	---	---	---	20.0	---	22.0	25.0	21.0
30	14.0	10.0	11.0	6.0	---	---	---	20.0	---	22.0	27.0	16.5
31	13.0	---	11.0	5.0	---	---	---	19.0	---	23.0	24.0	---
MEAN	16.0	10.0	9.5	6.5	7.0	12.0	14.0	19.5	21.0	26.0	23.0	20.5

WTR YR 1981 MEAN 15.0 MAX 30.0 MIN 4.0
NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	86	.42	108	.70	38	.24	23	.17	39	.32	44	.31
2	129	.59	58	.42	56	.35	53	.41	39	.32	41	.31
3	103	.44	50	.39	84	.52	29	.23	39	.21	64	.52
4	67	.29	66	.55	86	.53	68	.53	40	.22	59	.45
5	80	.39	51	.43	44	.27	36	.28	40	.24	67	.47
6	98	.42	58	.53	53	.33	50	.39	40	.24	58	.42
7	119	.51	72	.80	42	.26	57	.45	41	.23	33	.24
8	81	.35	60	.75	39	.25	54	.42	41	.23	43	.31
9	77	.37	69	.82	39	.24	47	.37	41	.27	41	.28
10	84	.36	62	.72	35	.22	52	.41	41	.25	31	.21
11	87	.31	67	.78	38	.24	34	.27	29	.17	25	.18
12	75	.24	68	.75	36	.22	41	.34	50	.31	48	.32
13	65	.26	65	.72	53	.33	58	.50	45	.30	56	.39
14	72	.29	42	.45	58	.39	44	.34	62	.42	111	.78
15	57	.23	33	.37	38	.26	47	.37	53	.37	105	.71
16	77	.27	38	.38	38	.26	42	.33	48	.34	107	.69
17	82	.31	44	.37	47	.33	37	.29	44	.33	98	.69
18	64	.26	51	.32	37	.28	41	.32	41	.30	110	.83
19	100	.41	45	.28	38	.28	36	.28	34	.25	88	.69
20	72	.31	48	.29	32	.23	40	.31	38	.28	98	.79
21	58	.25	45	.26	36	.26	37	.29	41	.31	85	.67
22	122	.59	52	.29	36	.27	29	.21	32	.23	118	1.0
23	130	.63	44	.25	59	.45	39	.28	42	.32	102	.96
24	138	.67	53	.30	30	.22	74	.50	42	.35	94	.89
25	82	.38	43	.24	25	.18	62	.42	38	.31	118	1.1
26	75	.36	50	.28	23	.17	36	.24	40	.31	110	1.1
27	65	.33	46	.26	24	.17	32	.20	40	.33	110	1.1
28	57	.31	57	.32	22	.17	59	.37	42	.33	100	.97
29	84	.48	63	.37	25	.19	39	.24	---	---	90	.92
30	73	.45	53	.33	29	.21	66	.37	---	---	90	1.0
31	77	.48	---	---	24	.19	57	.40	---	---	80	.82
TOTAL	---	11.96	---	13.72	---	8.51	---	10.53	---	8.09	---	20.12

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	80	.67	200	41	33	4.4	50	.43	127	4.1	60	5.2
2	80	.67	205	44	30	3.6	50	.49	190	4.6	50	3.6
3	70	.64	69	15	50	5.7	50	.51	127	2.9	79	4.9
4	70	.68	51	11	50	5.0	50	.59	126	2.8	70	3.6
5	60	.62	33	7.5	50	4.7	90	2.9	101	2.5	80	4.1
6	80	1.2	28	6.4	50	4.5	100	6.5	103	2.6	193	11
7	110	3.9	38	8.7	52	3.9	110	9.5	102	2.5	92	9.4
8	110	4.2	32	7.3	52	3.4	120	13	115	2.7	76	10
9	100	3.8	43	10	52	2.8	120	13	131	3.5	106	15
10	100	3.8	44	10	53	2.4	100	10	70	2.6	99	14
11	90	3.6	46	11	53	2.1	100	11	102	5.0	76	11
12	90	3.6	27	6.8	53	2.0	90	12	110	5.9	62	8.9
13	80	3.5	24	6.1	54	1.6	80	12	116	6.6	59	8.6
14	80	3.7	24	6.2	54	1.3	60	9.9	99	6.1	83	12
15	70	3.2	43	11	54	1.1	50	8.0	67	4.5	95	14
16	70	3.0	32	8.4	55	.89	47	6.9	66	4.6	48	7.4
17	100	4.3	24	6.4	55	.67	45	6.1	83	6.1	59	9.6
18	100	4.3	32	8.6	54	.51	279	35	67	5.2	58	9.4
19	180	7.8	28	7.6	54	.50	157	18	74	5.6	70	11
20	180	9.2	16	4.3	54	.50	455	54	43	3.0	98	15
21	180	13	19	5.1	53	.57	110	15	44	2.7	116	17
22	190	14	16	4.2	53	.53	85	12	189	9.7	56	7.9
23	190	17	20	5.1	53	.54	104	13	64	4.0	113	16
24	190	21	28	6.9	52	.55	74	7.6	60	6.0	72	9.5
25	200	26	23	5.4	52	.53	174	16	53	5.3	110	13
26	200	30	20	4.6	52	.53	95	7.7	88	8.1	79	9.2
27	210	33	27	6.0	51	.54	77	5.6	69	5.4	84	9.5
28	210	37	17	3.5	51	.52	92	5.5	97	8.1	78	8.4
29	210	40	17	3.2	51	.48	130	6.7	86	9.1	111	11
30	200	40	23	3.8	50	.42	91	4.2	79	8.7	125	11
31	---	---	28	4.2	---	---	122	4.6	132	14	---	---
TOTAL	---	337.38	---	289.3	---	56.78	---	327.72	---	164.5	---	300.2

TOTAL LOAD FOR YEAR: 1548.81 TONS.

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM

(National stream-quality accounting network, surveillance network, and radiochemical network station)

LOCATION.--Lat 33°40'50", long 106°59'30", Socorro County, Hydrologic Unit 13020203, 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 mi^2 (71,740 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

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 (station 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) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records poor. Floodway is 1 of 2 channels (station 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 ft^3/s or 57 m^3/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 (3,100 km^2) above station (includes about 13,800 acre-ft or 17.0 hm^3 diverted from conveyance channel, as based on weekly measurements, data furnished by Bureau of Reclamation).

AVERAGE DISCHARGE.--17 years (water years 1965-81), 488 ft^3/s (13.82 m^3/s), 353,600 acre-ft/yr (436 hm^3/yr).
Total flow of river.--86 years (water years 1895-1981), 1,231 ft^3/s (34.86 m^3/s), 891,900 acre-ft/yr (1,100 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, since January 1895 about 50,000 ft^3/s (1,420 m^3/s) Oct. 11, 1904; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,180 ft^3/s (90.1m^3/s) July 13, gage height, 14.40 ft (4.389 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	166	422	1290	1510	740	655	273	.00	.00	12	.00	246
2	131	390	1360	1630	687	941	132	.00	.00	.92	41	92
3	102	285	1390	1550	659	1040	119	.00	.00	27	157	48
4	95	317	1390	1520	724	1040	109	.00	.00	305	29	309
5	86	480	1450	1280	704	866	107	.00	.00	205	17	372
6	85	911	1420	1150	700	691	117	.00	.00	108	28	667
7	78	1240	1430	1160	732	768	105	32	.00	56	.00	619
8	78	1030	1440	1170	722	782	95	106	.00	12	15	1080
9	63	1120	1490	1150	724	688	96	72	.00	.00	217	734
10	55	1250	1430	990	801	572	102	67	.00	58	13	670
11	66	1010	1390	881	881	519	87	59	.00	63	19	303
12	78	1040	1280	848	804	613	82	43	.00	43	231	170
13	144	1330	1290	803	502	578	81	39	.00	1090	223	93
14	167	1260	1400	738	449	550	79	.00	.00	248	89	53
15	138	1240	1400	679	540	460	77	.00	.00	394	74	48
16	184	1280	1410	636	844	481	77	.00	.00	114	26	200
17	315	1420	1360	654	904	658	79	.00	.00	200	30	170
18	251	1430	1450	767	999	557	79	.00	.00	143	76	91
19	281	1420	1450	829	939	505	82	.00	.00	55	180	100
20	221	1290	1450	819	803	464	120	.00	.00	10	81	630
21	181	1290	1410	801	649	363	108	.00	.00	.00	16	300
22	182	1240	1470	715	670	356	82	.00	.00	.00	30	250
23	199	1300	1500	603	870	401	39	.00	.00	.00	18	200
24	148	1350	1450	611	948	384	32	.00	.00	.00	16	200
25	122	1360	1500	652	810	363	30	.00	.00	.00	14	150
26	91	1270	1400	741	726	322	30	.00	.00	.00	4.0	150
27	130	1250	1420	778	670	273	36	.00	.00	.00	.00	100
28	145	1310	1390	751	663	284	4.3	.00	.00	.00	31	100
29	185	1300	1360	733	---	301	.00	.00	.00	.00	326	150
30	189	1290	1380	732	---	300	.00	.00	.00	.00	270	150
31	188	---	1430	716	---	203	---	.00	---	.00	319	---
TOTAL	4544	33125	43680	28597	20864	16978	2459.30	418.00	.00	3143.92	2590.00	8445
MEAN	147	1104	1409	922	745	548	82.0	13.5	.000	101	83.5	282
MAX	315	1430	1500	1630	999	1040	273	106	.00	1090	326	1080
MIN	55	285	1280	603	449	203	.00	.00	.00	.00	.00	48
AC-FT	9010	65700	86640	56720	41380	33680	4880	829	.00	6240	5140	16750
(†)	9110	65880	86800	56890	41520	33860	6350	6170	881	8320	6510	19420

CAL YR 1980 TOTAL 608228.00 MEAN 1662 MAX 6040 MIN 43 AC-FT 1206000 (†) MEAN 1677 AC-FT 1218000
WTR YR 1981 TOTAL 164844.22 MEAN 452 MAX 1630 MIN .00 AC-FT 327000 (†) MEAN 472 AC-FT 341700

(†) COMBINED FLOW, IN ACRE-FT, AND MEAN, IN CUBIC FEET PER SECOND, OF FLOODWAY AND CONVEYANCE CHANNEL.

PERIOD OF RECORD.--Water years 1905-07, 1946 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1905 to April 1907, July 1946 to current year.
WATER TEMPERATURES: January 1949 to current year.
SUSPENDED SEDIMENT DISCHARGE: July 1946 to current year.
REMARKS.--Records of chemical analyses and sediment discharge for years prior to 1946 have been published in Water Bulletins of International Boundary and Water Commission. Additional sediment total load determination were made bi-weekly when needed.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,730 micromhos Apr. 8, 1953; minimum daily, 293 micromhos June 20, 1967.
WATER TEMPERATURES: Maximum, 36.0°C Aug. 11, 1951; minimum, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 135,000 mg/L July 23, 1977; minimum daily, no flow on many days each year.
SEDIMENT LOADS: Maximum daily, 966,000 tons (876,000 tonnes) Oct. 22, 1957; minimum daily, 0 tons (0 tonnes) many days each year.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,950 micromhos July 21-22; minimum daily, 500 micromhos Dec. 17.
WATER TEMPERATURES: Maximum, 31.0°C July 19; minimum, 3.0°C on Nov. 26, Jan. 15
SEDIMENT CONCENTRATIONS: Maximum daily, 99,400 mg/L Aug. 19; minimum daily, no flow on many days.
SEDIMENT LOADS: Maximum daily, 281,000 tons (255,000 tonnes) Sept. 8; minimum daily, 0 tons (0 tonnes) on many days.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT											
02...	0945	131	821	8.5	--	16.0	--	--	--	240	47
15...	1615	121	880	8.5	18.0	16.0	3.0	7.5	--	240	50
NOV											
13...	1613	992	545	8.2	19.0	11.5	400	9.0	--	170	28
DEC											
17...	1000	1400	500	8.3	6.0	7.0	130	10.2	--	170	41
JAN											
20...	1200	766	600	8.0	1.0	4.0	7.5	11.0	42	190	54
FEB											
19...	1130	933	550	8.3	12.0	11.0	80	9.1	--	180	--
MAR											
17...	1130	624	600	8.5	20.0	12.5	130	9.0	--	180	--
APR											
14...	1200	76	690	8.7	13.0	13.0	8.6	8.9	--	220	--
JUL											
16...	1115	110	1250	8.0	26.0	24.0	22000	6.2	--	370	--
AUG											
25...	1230	14	1020	8.2	30.0	26.0	--	--	--	--	--
SEP											
17...	1330	165	720	8.2	23.5	21.0	14000	7.6	--	220	--

DATE	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT										
02...	--	72	14	87	2.5	6.0	190	--	160	50
15...	--	73	14	90	2.5	6.9	190	--	170	55
NOV										
13...	--	53	8.7	44	1.5	4.8	--	140	100	23
DEC										
17...	--	52	10	44	1.5	4.4	--	130	97	27
JAN										
20...	--	61	10	59	1.8	4.0	--	--	120	34
FEB										
19...	--	55	9.8	55	1.8	4.6	--	140	120	29
MAR										
17...	34	57	10	58	1.9	4.9	--	150	110	34
APR										
14...	49	68	12	64	1.9	5.0	--	170	150	33
JUL										
16...	270	110	22	130	3.0	7.7	--	92	480	55
AUG										
25...	--	--	--	--	--	--	--	--	--	--
SEP										
17...	87	67	12	71	2.2	5.8	--	130	180	31

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)
OCT										
02...	.6	26	--	531	--	.15	--	--	--	--
15...	.6	27	559	551	.19	.16	.010	.020	.99	1.2
NOV										
13...	.5	23	343	346	.69	.70	.070	.060	1.5	2.3
DEC										
17...	.9	22	337	338	.59	.57	.130	.140	1.2	1.9
JAN										
20...	.5	24	402	400	.69	.68	.170	.180	.93	1.8
FEB										
19...	.5	25	381	387	.87	.91	.020	.040	1.1	2.0
MAR										
17...	.5	25	403	394	.90	.90	.000	.030	1.5	2.4
APR										
14...	.5	25	463	460	.02	.02	.040	.060	.81	.87
JUL										
16...	.8	13	888	880	1.4	1.4	.110	.020	27	28
AUG										
25...	--	--	--	--	--	--	--	--	--	--
SEP										
17...	.6	19	487	468	.70	.69	.060	.080	2.3	3.1

DATE	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)	PHENOLS (UG/L) (32730)
OCT										
02...	.280	.120	100	<10	--	--	--	--	--	--
15...	.280	--	--	--	--	6.7	--	--	--	0
NOV										
13...	.620	--	--	30	2	--	--	--	2.0	--
DEC										
17...	.770	--	--	--	--	6.4	--	--	--	--
JAN										
20...	.670	--	--	--	--	10	--	--	--	--
FEB										
19...	.480	--	--	10	5	--	5.5	1.8	.00	--
MAR										
17...	.780	--	--	--	--	8.5	--	--	--	--
APR										
14...	.190	--	--	--	--	6.9	--	--	--	--
JUL										
16...	7.50	--	--	--	--	200	--	--	--	--
AUG										
25...	--	--	--	--	--	--	--	--	--	--
SEP										
17...	7.80	--	--	--	--	270	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)
NOV										
13...	1613	8	6	200	70	0	<1	20	0	15
FEB										
19...	1130	7	8	200	100	0	1	10	0	1

DATE	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)
NOV										
13...	<3	40	3	26000	30	33	1	1100	2	.0
FEB										
19...	<3	11	3	6900	10	17	0	300	5	.1

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV										
13...	.0	8	33	2	0	0	0	0	150	4
FEB										
19...	.0	6	7	4	0	0	0	0	40	10

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
OCT									
15...	1615	<9.4	15	5.3	10	5.1	9.5	.08	2.7

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
15...	1615	150	380
NOV			
13...	1613	1500	1400
DEC			
17...	1000	260	1200
JAN			
20...	1200	1800	4400
FEB			
19...	1130	2000	3200
MAR			
17...	1130	90	260
APR			
14...	1200	5	64
JUL			
16...	1115	6000	24000
SEP			
17...	1330	22000	24000

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 13,80	APR 14,81
TIME	1613	1200
TOTAL CELLS/ML	560	1400
DIVERSITY: DIVISION	0.2	0.7
.CLASS	0.2	0.7
..ORDER	2.1	1.7
...FAMILY	2.2	1.8
....GENUS	2.5	2.2

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)				
.BACILLARIOPHYCEAE				
..ACHNANTHALES				
...ACHNANTHACEAE				
....COCCONEIS	--	-	13	1
..BACILLARIALES				
...NITZSCHIACEAE				
....NITZSCHIA	250#	44	390#	27
..EPITHEMIALES				
...EPITHEMIACEAE				
....EPITHEMIA	14	2	--	-
..EUPODISCALES				
...COSCINODISCACEAE				
....CYCLOTELLA	41	7	590#	41
....MELOSIRA	28	5	--	-
....STEPHANODISCUS	--	-	150	11
..FRAGILARIALES				
...FRAGILARIACEAE				
....DIATOMA	55	10	--	-
....FRAGILARIA	83	15	--	-
..NAVICULALES				
...CYMBELLACEAE				
....CYMBELLA	28	5	--	-
...NAVICULACEAE				
....NAVICULA	55	10	39	3
CHLOROPHYTA (GREEN ALGAE)				
.CHLOROPHYCEAE				
..CHLOROCOCCALES				
...MICRACTINIACEAE				
....MICRACTINIUM	--	-	26	2
...OOCYSTACEAE				
....ANKISTRODESMUS	--	-	13	1
..VOLVOCALES				
...CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS	--	-	210	14
..ZYGNEMATALES				
...DESMIDIACEAE				
....STAURASTRUM	14	2	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
PERIPHYTON

DATE	TIME	LENGTH OF EXPO-SURE (DAYS) (00022)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70958)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS) (70950)	SAMPLING METHOD
OCT 15...	1615	28	3.23	2.99	.520	.000	462	Polyethylene strip

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .008 MM (70339)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)
OCT									
02...	0945	131	16.0	250	88	44	54	62	69
15...	1045	112	14.0	346	105	34	39	45	52
15...	1615	121	16.0	341	111	--	--	--	--
25...	1955	122	15.0	2160	712	28	33	--	51
NOV									
03...	1130	298	12.0	747	601	43	50	--	66
13...	1613	992	11.5	3420	9160	12	14	--	24
17...	1045	1410	5.0	638	2430	46	54	--	77
DEC									
02...	1000	1370	8.0	1100	4070	16	20	--	27
15...	1030	1420	7.0	713	2730	18	22	27	34
17...	1000	1400	7.0	2030	7670	--	--	--	--
JAN									
05...	1030	1320	7.0	935	3330	11	14	16	20
20...	1200	766	4.0	1120	2320	--	--	--	--
FEB									
02...	1300	650	7.0	339	595	--	--	--	--
19...	1130	933	11.0	1300	3280	7	8	9	11
MAR									
17...	1215	649	12.5	1080	1890	11	14	17	21
APR									
14...	1200	76	13.0	94	19	--	--	--	--
MAY									
07...	1800	11	22.0	4070	121	25	31	--	35
JUL									
16...	1115	110	24.0	37800	11200	72	83	--	98
AUG									
20...	1415	41	30.0	87000	9630	65	76	--	98
30...	1420	382	29.0	60500	62400	59	71	--	91
SEP									
04...	1940	387	24.0	53200	55600	40	47	--	85
17...	1400	165	21.0	22300	9940	60	72	--	95

DATE	SED. SUSP. FALL DIAM. % FINER THAN .031 MM (70341)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)
OCT									
02...	77	--	--	--	--	92	99	100	--
15...	58	68	86	100	--	--	--	--	--
15...	--	--	--	--	--	85	94	100	--
25...	--	--	--	--	--	99	100	--	--
NOV									
03...	--	--	--	--	--	98	100	--	--
13...	--	55	91	100	--	--	--	--	--
17...	--	--	--	--	--	98	99	100	--
DEC									
02...	--	65	93	100	--	--	--	--	--
15...	46	72	95	100	--	--	--	--	--
17...	--	30	77	100	--	--	--	--	--
JAN									
05...	26	39	63	98	100	--	--	--	--
20...	--	29	69	100	--	--	--	--	--
FEB									
02...	--	59	90	100	--	--	--	--	--
19...	16	30	77	100	--	--	--	--	--
MAR									
17...	28	43	76	100	--	--	--	--	--
APR									
14...	--	--	--	--	--	48	79	99	100
MAY									
07...	--	36	41	91	100	--	--	--	--
JUL									
16...	--	100	--	--	--	--	--	--	--
AUG									
20...	--	100	--	--	--	--	--	--	--
30...	--	98	99	100	--	--	--	--	--
SEP									
04...	--	99	100	--	--	--	--	--	--
17...	--	99	100	--	--	--	--	--	--

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)
OCT									
02...	0945	131	250	88	43	74	98	100	--
15...	1045	112	346	105	2	15	89	100	--
NOV									
03...	1130	298	747	601	70	95	100	--	--
17...	1045	1410	638	2430	41	88	100	--	--
DEC									
02...	1000	1370	1100	4070	4	20	94	100	--
15...	1030	1420	713	2730	37	96	100	--	--
JAN									
05...	1030	1320	935	3330	2	29	96	100	--
20...	1200	766	1120	2320	9	50	92	100	--
FEB									
02...	1300	650	339	595	1	7	68	98	100
19...	1130	933	1300	3280	3	36	94	100	--
MAR									
17...	1215	649	1080	1890	2	9	85	100	--
APR									
14...	1200	76	94	19	1	11	83	100	--

TOTAL SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SEDI-MENT, DISCH, SUSP. + BED MA-TERIAL (T/DAY) (80156)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOC-ITY, MEAN (FPS) (00055)
OCT									
15...	1045	112	14.0	346	105	130	87.0	1.0	1.30
DEC									
02...	1000	1370	8.0	1100	4070	6030	210	1.7	3.90
JAN									
05...	1030	1320	7.0	935	3330	7460	208	1.6	4.00
20...	1200	766	4.0	1120	2320	3490	156	1.4	3.50
FEB									
02...	1300	650	7.0	339	595	1220	127	1.6	3.20
19...	1130	933	11.0	1300	3280	4750	146	1.7	3.90
MAR									
17...	1215	649	12.5	1080	1890	3500	196	1.3	2.60
APR									
14...	1200	76	13.0	94	19	38	75.0	.84	1.20
SEP									
17...	1400	165	21.0	22300	9940	10100	120	.69	2.00

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	930	1020	573	630	644	739	---	---		---	---	1550
2	920	1010	550	590	701	672	---	---		---	---	1440
3	934	1100	606	663	---	615	---	---		---	935	1110
4	920	1020	604	675	---	678	---	---		---	968	958
5	934	671	606	688	---	689	---	---		---	1130	908
6	924	640	608	689	---	683	---	---		---	1100	930
7	936	633	612	695	---	700	---	728		---	1400	1700
8	933	629	613	648	---	773	---	725		---	1120	1900
9	---	630	626	704	---	783	---	727		---	832	1560
10	---	630	620	704	657	782	---	725		---	870	1530
11	825	630	627	713	729	788	---	726		---	1120	978
12	949	---	619	714	742	789	---	778		---	1460	904
13	980	505	624	716	750	791	---	785		---	1020	863
14	993	552	617	714	746	745	738	---		---	835	841
15	975	564	631	713	755	766	---	---		---	1830	911
16	993	565	618	711	752	774	---	---		1360	1780	907
17	1010	570	617	700	---	728	---	---		1180	1640	876
18	1000	576	613	715	---	778	---	---		1480	1100	---
19	1010	579	616	726	684	787	---	---		1540	950	1050
20	1000	576	614	730	---	783	---	---		1820	1040	1860
21	1010	574	614	737	---	787	---	---		1950	939	1350
22	958	571	611	737	630	783	---	---		1950	1590	1300
23	957	576	614	737	---	788	---	---		---	1680	1350
24	1540	572	610	723	---	686	---	---		---	1460	1340
25	1130	575	610	730	---	783	---	---		---	1190	964
26	1080	572	609	730	---	---	---	---		---	1100	927
27	1080	575	613	721	---	---	---	---		---	---	927
28	1080	574	625	724	---	---	---	---		---	887	907
29	1100	574	631	724	---	---	---	---		---	875	1150
30	1070	570	628	722	---	---	---	---		---	1200	1110
31	1090	---	630	722	---	---	---	---		---	1560	---
MEAN	1010	649	613	705	708	747	738	742		1610	1200	1180

WTR YR 1981 MEAN 879 MAX 1950 MIN 505
NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	13.0	4.0	10.0	5.0	13.0	---	---		---	---	20.0
2	18.0	13.0	9.0	9.0	7.0	15.0	---	---		---	---	23.0
3	17.0	13.0	10.0	6.0	---	11.0	---	---		---	28.0	21.0
4	18.0	15.0	10.0	9.0	---	12.0	---	---		---	21.5	24.0
5	20.0	16.0	7.0	7.0	---	8.0	---	---		---	22.0	25.0
6	18.0	17.5	11.0	9.0	---	12.0	---	---		---	22.0	21.0
7	18.0	14.0	11.0	10.0	---	10.0	---	22.0		---	26.0	20.0
8	17.0	16.0	12.5	11.0	---	12.0	---	20.0		---	26.0	18.0
9	17.5	17.5	10.0	10.0	---	14.0	---	21.0		---	20.5	20.0
10	18.0	15.0	8.0	6.5	9.0	13.0	---	23.5		---	19.5	23.0
11	18.0	16.0	10.0	7.0	10.0	15.0	---	19.0		---	23.0	22.0
12	14.0	14.0	10.0	6.0	8.5	14.0	---	23.0		---	18.0	24.0
13	14.0	7.0	8.0	4.5	6.0	10.0	---	23.5		---	20.0	20.5
14	16.0	6.5	11.0	4.5	5.0	12.0	13.0	---		---	18.0	18.0
15	16.0	4.0	8.0	3.0	6.0	11.0	---	---		---	28.0	22.0
16	15.0	4.5	9.0	4.0	9.0	13.5	---	---		24.0	20.0	17.0
17	16.5	5.0	10.0	5.0	---	12.0	---	---		23.0	18.0	21.0
18	13.0	5.5	11.0	4.5	---	12.5	---	---		30.0	24.0	---
19	15.0	4.0	11.0	6.0	11.0	10.0	---	---		31.0	20.0	22.0
20	14.0	3.5	10.0	4.0	---	13.0	---	---		30.0	30.0	19.0
21	12.0	8.0	12.0	5.5	---	12.5	---	---		25.0	29.0	18.0
22	13.0	5.0	11.0	3.5	9.0	10.0	---	---		26.5	25.0	18.0
23	14.0	5.0	11.0	5.0	---	14.0	---	---		---	22.0	22.0
24	15.0	4.0	9.0	6.0	---	12.0	---	---		---	19.0	22.0
25	15.0	4.0	10.0	6.0	---	14.0	---	---		---	19.0	18.5
26	15.5	3.0	9.0	5.0	---	---	---	---		---	19.0	22.0
27	12.5	5.5	10.0	3.5	---	---	---	---		---	---	24.0
28	12.5	7.0	11.0	6.0	---	---	---	---		---	27.0	15.5
29	13.0	8.0	9.0	6.5	---	---	---	---		---	27.0	21.5
30	14.0	9.0	11.0	6.5	---	---	---	---		---	29.0	16.0
31	12.0	---	12.0	5.0	---	---	---	---		---	26.0	---
MEAN	15.5	9.5	10.0	6.5	8.0	12.0	13.0	21.5		27.0	23.0	20.5

WTR YR 1981 MEAN 14.0 MAX 31.0 MIN 3.0
NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	180	81	217	247	713	2480	885	3610	1170	2340	256	453
2	227	80	534	562	911	3350	568	2500	362	671	251	638
3	94	26	795	612	1120	4200	680	2850	316	562	476	1340
4	78	20	418	358	718	2690	613	2520	290	567	378	1060
5	129	30	1750	2270	882	3450	732	2530	258	490	325	760
6	150	34	2880	7080	821	3150	592	1840	231	437	340	634
7	144	30	2020	6760	750	2900	440	1380	221	437	351	728
8	169	36	1910	5310	690	2680	483	1530	221	431	377	796
9	199	34	3050	9220	793	3190	504	1560	210	411	358	665
10	189	28	3090	10400	1260	4860	454	1210	138	298	355	548
11	233	42	2470	6740	1260	4730	442	1050	98	233	387	542
12	260	55	2250	6320	1810	6260	465	1060	119	258	510	844
13	720	280	3560	12800	1220	4250	440	954	120	163	496	774
14	770	347	2350	7990	1740	6580	437	871	105	127	194	288
15	403	150	2750	9210	902	3410	411	753	49	71	338	420
16	259	129	1500	5180	1300	4950	441	757	110	251	430	558
17	171	145	1030	3950	1580	5800	270	477	177	432	930	1650
18	171	116	3250	12500	675	2640	213	441	210	566	592	890
19	167	127	3250	12500	1050	4110	189	423	920	2330	383	522
20	199	119	2750	9580	951	3720	702	1550	648	1400	360	451
21	297	145	2260	7870	925	3520	182	394	690	1210	340	333
22	171	84	3410	11400	2150	8530	310	598	810	1470	297	285
23	127	68	4640	16300	1120	4540	235	383	1070	2510	350	379
24	198	79	2700	9840	1200	4700	340	561	1070	2740	330	342
25	1340	441	2200	8080	801	3240	1060	1870	717	1570	296	290
26	1850	455	780	2670	830	3140	510	1020	525	1030	300	261
27	2420	849	571	1930	736	2820	681	1430	247	447	325	240
28	1420	556	665	2350	903	3390	430	872	50	90	350	268
29	2300	1150	737	2590	700	2570	435	861	---	---	380	309
30	1550	791	907	3160	712	2650	275	544	---	---	400	324
31	1540	782	---	---	620	2390	448	866	---	---	415	227
TOTAL	---	7309	---	195779	---	120890	---	39265	---	23542	---	17819

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	430	317	0	.00	0	.00	5820	479	0	.0	57100	37900
2	435	155	0	.00	0	.00	621	19	32000	3540	55000	13700
3	362	116	0	.00	0	.00	8710	1410	32700	13900	61600	7980
4	401	118	0	.00	0	.00	42000	46300	27700	2190	71100	58800
5	371	107	0	.00	0	.00	34700	19200	43700	2010	48700	50900
6	440	139	0	.00	0	.00	16700	4870	73400	5490	53500	96300
7	383	109	4250	367	0	.00	4700	711	0	.0	63100	136000
8	363	93	2310	661	0	.00	1500	75	71000	2880	96500	281000
9	351	91	1650	321	0	.00	0	.0	66800	50900	68100	135000
10	367	101	2610	472	0	.00	29500	4620	47900	1680	97000	175000
11	281	66	1550	247	0	.00	30100	5820	42500	2180	21000	17200
12	193	43	807	94	0	.00	25500	2960	82100	55500	21000	9640
13	111	24	675	71	0	.00	59900	213000	76600	39700	17000	4270
14	93	20	0	.00	0	.00	45000	31000	62500	16000	16300	2330
15	81	17	0	.00	0	.00	56700	64500	80100	16000	11400	1480
16	77	16	0	.00	0	.00	38000	11700	59900	4200	12800	6910
17	75	16	0	.00	0	.00	63200	34800	53000	4290	23200	10600
18	71	15	0	.00	0	.00	69300	35900	55400	16300	28600	7030
19	64	14	0	.00	0	.00	62900	9340	99400	47200	43900	11900
20	94	30	0	.00	0	.00	51200	1380	98500	21500	74200	86700
21	94	27	0	.00	0	.00	0	.0	87000	3760	44700	36200
22	78	17	0	.00	0	.00	0	.0	98600	7990	51100	34500
23	66	6.9	0	.00	0	.00	0	.0	84600	4110	65000	35100
24	65	5.6	0	.00	0	.00	0	.0	53500	2310	67900	36700
25	65	5.3	0	.00	0	.00	0	.0	17200	650	19500	7900
26	64	5.2	0	.00	0	.00	0	.0	3900	42	16000	6480
27	62	6.0	0	.00	0	.00	0	.0	0	.0	15500	4180
28	109	11	0	.00	0	.00	0	.0	14300	12500	10000	2700
29	8	.34	0	.00	0	.00	0	.0	49000	48800	17700	7170
30	0	.00	0	.00	0	.00	0	.0	56600	44300	16500	6680
31	---	---	0	.00	---	---	0	.0	71800	61800	---	---
TOTAL	---	1691.34	---	2233.00	---	0.00	---	488084.0	---	491722.0	---	1328250

TOTAL LOAD FOR YEAR: 2716584.34 TONS.

08360500 ELEPHANT BUTTE RESERVOIR AT ELEPHANT BUTTE, NM

LOCATION.--Lat 33°09'15", long 107°11'28", in NW¼ sec.30, T.13 S., R.3 W., Sierra County, Hydrologic Unit 13020211, 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) and at mile 1,383.2 (2,225.6 km).

DRAINAGE AREA.--29,445 mi^2 (76,260 km^2), approximately including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.

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.

REVISED RECORDS.--WSP 1442: 1954(m). WSP 1632: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 43.4 ft (13.20 m) National Geodetic Vertical Datum of 1929. Oct. 16, 1939, to May 2, 1940, and prior to September 1930, nonrecording gages.

REMARKS.--Reservoir is formed by concrete dam. Storage began Jan. 6, 1915. Dam completed May 13, 1916. Capacity, 2,110,000 acre-ft (2.60 km^3) survey of 1981 at gage height 4,407.0 ft (1,343.25 m) crest of spillway. Capacity by original survey was 2,638,900 acre-ft (3.25 km^3). No adjustment made for decrease in capacity due to sedimentation between effective dates of capacity tables. No dead storage. 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 2,303,000 acre-ft (2,84 km^3) June 16-18, 1942, gage height, 4,409.19 ft (1,343.921 m); minimum daily contents after initial filling, 9,900 acre-ft (12.2 hm^3) Aug. 6, 1954,gage height, 4.258.03 ft (1,297.848 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 1,224,000 acre-ft (1.51 km^6) Dec. 28-30, gage height, 4,377.78 ft (1,334.347 m); minimum daily contents, 746,400 acre-ft (0.92 km^6) Sept. 8 gage height, 4,355.54 ft (1,327.569 m).

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

Oct. 1 to Dec. 31 (Based on survey by USBR in 1974)		Jan 1 to Sept. 30 (Based on survey by USBR in 1981)			
4,370	1,046.8	4,355	737.1	4,375	1,141.2
4,380	1,279,0	4,365	922,9	4,385	1,397.4

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1172000	1158000	1208000	1206000	1206000	1184000	1198000	1116000	987100	874900	797500	764700
2	1172000	1159000	1208000	1206000	1205000	1185000	1194000	1113000	983100	872000	796200	762500
3	1172000	1159000	1207000	1209000	1204000	1185000	1192000	1110000	979900	869300	795100	758200
4	1172000	1159000	1208000	1211000	1202000	1187000	1189000	1107000	975500	866800	793300	753800
5	1172000	1159000	1208000	1212000	1201000	1190000	1186000	1103000	972400	864500	792000	752400
6	1171000	1160000	1210000	1211000	1199000	1190000	1183000	1099000	969000	860900	791200	750200
7	1170000	1162000	1212000	1211000	1200000	1190000	1180000	1094000	965500	857600	789700	748100
8	1169000	1163000	1213000	1211000	1201000	1192000	1178000	1090000	962200	855100	787900	746400
9	1169000	1165000	1213000	1211000	1200000	1194000	1175000	1085000	958900	851500	786800	747600
10	1168000	1167000	1212000	1213000	1198000	1194000	1172000	1081000	955100	848500	785200	749300
11	1168000	1169000	1211000	1215000	1196000	1195000	1170000	1077000	950600	845900	783100	751000
12	1167000	1170000	1211000	1216000	1195000	1196000	1167000	1073000	946100	842800	781700	752100
13	1167000	1172000	1214000	1217000	1194000	1197000	1165000	1069000	941200	840200	780400	752600
14	1166000	1173000	1216000	1217000	1194000	1198000	1162000	1064000	936700	838700	779200	752900
15	1166000	1177000	1217000	1217000	1195000	1198000	1158000	1060000	932800	836300	778600	753500
16	1165000	1177000	1216000	1215000	1194000	1198000	1155000	1055000	927800	833300	777200	755200
17	1165000	1178000	1216000	1215000	1193000	1199000	1153000	1051000	924300	831800	776000	756100
18	1164000	1180000	1216000	1216000	1192000	1200000	1150000	1047000	920100	829900	775100	756200
19	1164000	1183000	1216000	1215000	1191000	1201000	1147000	1042000	916700	827900	774200	756600
20	1162000	1186000	1217000	1214000	1190000	1201000	1144000	1038000	913100	825300	773700	757300
21	1162000	1187000	1220000	1212000	1190000	1201000	1141000	1033000	909500	822900	772900	757800
22	1162000	1190000	1220000	1211000	1190000	1201000	1139000	1029000	905700	820300	772200	758000
23	1162000	1191000	1220000	1209000	1189000	1202000	1136000	1025000	900800	816600	771900	758200
24	1161000	1196000	1220000	1211000	1188000	1202000	1132000	1021000	897000	814000	771200	758200
25	1160000	1195000	1220000	1212000	1186000	1202000	1130000	1017000	892700	811300	770500	756600
26	1160000	1198000	1220000	1210000	1185000	1201000	1127000	1012000	887800	807600	769900	756200
27	1160000	1200000	1222000	1209000	1183000	1202000	1125000	1008000	883700	804400	768900	754500
28	1159000	1203000	1224000	1208000	1184000	1201000	1122000	1004000	879600	803600	768200	754200
29	1158000	1205000	1224000	1207000	---	1201000	1120000	1000000	875300	802200	767100	754200
30	1158000	1208000	1224000	1205000	---	1201000	1116000	995800	872800	800400	766800	754000
31	1158000	---	1222000	1205000	---	1201000	---	990700	---	799500	765900	---
MAX	1172000	1208000	1224000	1217000	1206000	1202000	1198000	1116000	987100	874900	797500	764700
MIN	1158000	1158000	1207000	1205000	1183000	1184000	1116000	990700	872800	799500	765900	746400
(†)	4375.00	4377.09	4377.69	4377.65	4376.78	4377.49	4373.92	4368.28	4362.46	4358.54	4356.66	4355.98
(‡)	-16000	+50000	+14000	0-1000	-21000	+17000	-85000	-125300	-117900	-73300	-33600	-11900

CAL YR 1980 MAX 1292000 MIN 920700 (‡) + 278500
WTR YR 1981 MAX 1224000 MIN 746400 (‡) * -403000

(†) ELEVATION, IN FEET, AT END OF MONTH
(‡) CHANGE IN CONTENTS, IN ACRE-FEET
* COMPUTED ON BASIS OF REVISED CAPACITY TABLE PUT INTO USE JAN. 1, 1981.

08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM
(National stream-quality accounting network station)

LOCATION.--Lat 33°08'54", long 107°12'22", Sierra County, Hydrologic Unit 13030101, 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 mi^2 (76,280 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

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.

REVISED RECORDS.--WSP 1562: 1920. WSP 1632: Drainage area. WSP 1732: 1917, 1920. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 4,241.09 ft (1,292.684 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 24, 1980 at datum 1.0 ft (0.305 m) higher. See WSP 1732 for history of changes prior to Apr. 24, 1942.

REMARKS.--Water-dishcarge records good. Flow regulated by Elephant Butte Reservoir (station 08360500). Diversion for irrigation of about 800,000 acres (3,200 km^2) above station.

AVERAGE DISCHARGE.--66 years, 968 ft^3/s (27.41 m^3/s), 701,300 acre-ft/yr (865 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 8,220 ft^3/s (233 m^3/s) May 22, 1942; no flow at times prior to 1929.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,290 ft^3/s (64.9 m^3/s) May 5; minimum daily, 6.0 ft^3/s (0.17 m^3/s) Mar. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	18	1080	1380	27	29	1400	1480	1870	1380	696	365
2	9.8	18	1370	1230	1120	20	1420	1460	1850	1330	690	1130
3	10	17	1320	27	1370	6.5	1430	1460	1860	1360	730	2090
4	10	17	1360	22	1320	6.0	1430	1450	1860	1360	738	1840
5	10	17	1240	1130	1390	6.6	1430	2290	1860	1360	739	1390
6	11	17	29	1320	1320	6.7	1440	2230	1850	1360	732	1400
7	10	17	24	1310	34	7.3	1450	2260	1860	1360	724	1410
8	9.8	17	1090	1290	29	10	1460	2240	1860	1360	722	918
9	10	16	1330	761	1160	12	1470	2230	1860	1360	709	26
10	9.1	16	1360	29	1420	9.8	1470	2220	1850	1370	705	22
11	6.6	16	1370	23	1410	6.9	1470	2200	1850	1360	711	22
12	6.3	16	1320	337	1400	9.3	1470	2150	1860	1360	711	21
13	6.2	16	32	338	1310	8.5	1470	2190	1860	1360	700	20
14	6.1	745	24	414	30	11	1470	2180	1860	1370	699	19
15	7.5	26	1140	1340	25	11	1470	2170	1860	1370	703	18
16	7.8	26	1360	1340	1160	13	1490	2160	1870	1380	700	17
17	8.8	21	1410	42	1410	19	1500	2160	1880	1360	700	15
18	9.8	15	1340	26	1410	15	1510	2070	1880	1390	700	15
19	10	15	1220	1180	1420	29	1510	2060	1870	1410	701	15
20	11	15	33	1430	1310	26	1520	2030	1890	1400	697	15
21	12	16	25	1350	30	21	1520	2040	1890	1400	370	15
22	13	16	1130	1350	29	24	1520	2120	1850	1410	328	15
23	14	17	1370	1300	1180	27	1520	2130	1860	1430	335	14
24	16	17	1370	33	1440	27	1520	2120	1860	1430	340	228
25	18	18	1380	27	1450	27	1520	2110	1860	1440	340	687
26	21	17	1250	1110	1450	92	1520	2110	1860	1460	344	698
27	21	17	31	1370	1380	18	1500	2110	1860	1470	356	704
28	27	19	25	1370	30	15	1510	2110	1860	701	359	249
29	36	19	1130	1380	---	15	1500	2110	1860	685	356	19
30	34	18	1370	1270	---	19	1490	2110	1540	702	358	19
31	18	---	1430	33	---	18	---	2100	---	698	354	---
TOTAL	409.8	1255	29963	25562	27064	565.6	44400	63860	55560	40186	18047	13416
MEAN	13.2	41.8	967	825	967	18.2	1480	2060	1852	1296	582	447
MAX	36	745	1430	1430	1450	92	1520	2290	1890	1470	739	2090
MIN	6.1	15	24	22	25	6.0	1400	1450	1540	685	328	14
AC-FT	813	2490	59430	50700	53680	1120	88070	126700	110200	79710	35800	26610

CAL YR 1980 TOTAL 344552.5 MEAN 941 MAX 1990 MIN 6.1 AC-FT 683400
WTR YR 1981 TOTAL 320288.4 MEAN 878 MAX 2290 MIN 6.0 AC-FT 635300

PERIOD OF RECORD.--Water years 1975 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT										
16...	1016	8.5	523	7.7	12.0	13.5	.60	5.0	160	16
JAN										
21...	1300	2020	480	8.1	5.0	9.0	1.0	8.8	150	35
MAR										
18...	1100	10	475	9.3	12.0	10.5	2.6	11.0	170	--
MAY										
22...	0930	2180	490	8.2	20.0	13.5	6.1	6.2	160	--
JUL										
17...	0830	1410	510	7.8	24.0	16.0	4.2	2.6	160	--
SEP										
18...	0830	15	500	7.6	17.5	16.0	1.4	4.4	160	--

DATE	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT										
16...	--	48	8.8	44	1.5	4.3	140	--	86	22
JAN										
21...	--	48	8.4	41	1.4	3.6	--	--	88	19
MAR										
18...	37	51	9.6	46	1.6	3.3	--	130	100	21
MAY										
22...	31	50	8.7	42	1.4	4.1	--	130	85	20
JUL										
17...	32	50	9.0	41	1.4	4.1	--	130	95	22
SEP										
18...	20	49	9.0	42	1.5	4.3	--	140	83	21

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)
OCT									
16...	.4	18	329	316	--	--	.00	.00	.370
JAN									
21...	.4	16	306	297	--	--	.05	.02	.100
MAR									
18...	.4	16	333	326	--	--	.00	.00	.000
MAY									
22...	.4	15	317	304	.05	.020	.09	.07	.110
JUL									
17...	.2	16	323	316	--	--	.08	.10	.080
SEP									
18...	.4	17	326	310	--	--	.01	.01	.240

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT									
16...	.220	.39	.76	.370	--	--	--	11	.7
JAN									
21...	.110	.42	.57	.090	<10	<1	--	7.2	.3
MAR									
18...	.050	1.2	1.2	.070	<10	8	--	8.2	.4
MAY									
22...	.100	.46	.66	.170	--	--	17	--	--
JUL									
17...	.120	.63	.79	.030	30	30	--	4.0	.2
SEP									
18...	.280	.43	.68	.240	18	270	--	4.5	.4

08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)
JAN										
21...	1300	4	4	100	90	0	<1	0	0	0
MAR										
18...	1100	4	5	100	80	0	<1	10	10	2
JUL										
17...	0830	5	5	100	80	0	<1	0	0	2
SEP										
18...	0830	5	5	100	87	0	3	0	0	0

DATE	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)
JAN										
21...	<3	10	2	160	<10	10	0	10	<1	.0
MAR										
18...	<3	3	2	70	<10	4	0	20	8	.1
JUL										
17...	<3	5	3	100	30	2	0	50	30	.0
SEP										
18...	0	3	0	90	18	1	0	280	270	.0

DATE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
JAN									
21...	.0	22	0	0	0	0	0	30	6
MAR									
18...	.0	1	1	0	0	0	0	0	6
JUL									
17...	.0	4	1	0	0	0	0	10	10
SEP									
18...	.0	1	0	0	0	0	0	10	<3

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
16...	1016	4	3
JAN			
21...	1300	0	3
MAR			
18...	1100	0	12
MAY			
22...	0930	0	6
JUL			
17...	0830	6	4
SEP			
18...	0830	36	18

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
IDENTIFICATION OF PHYTOPLANKTON

DATE	OCT 16,80		MAR 18,81		MAY 22,81		JUL 17,81		SEP 18,81	
TIME	1016		0845		0930		0830		0830	
TOTAL CELLS/ML	2700		120		1700		90		420	
DIVERSITY: DIVISION	1.1		0.8		1.4		1.4		0.0	
.CLASS	1.1		0.8		1.4		1.4		0.0	
..ORDER	1.4		1.0		1.8		1.4		1.4	
...FAMILY	1.5		2.4		2.3		2.2		1.4	
....GENUS	1.5		2.7		3.4		2.2		1.4	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)										
.BACILLARIOPHYCEAE										
..ACHNANTHALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	28	2	--	-	--	-
....COCCONEIS	--	-	--	-	28	2	--	-	--	-
....RHOICOSPHENIA	26	1	--	-	--	-	--	-	--	-
..BACILLARIALES										
...NITZSCHIACEAE										
....NITZSCHIA	540#	20	--	-	98	6	13	14	72#	17
..EPITHEMIALES										
...EPITHEMIACEAE										
....EPITHEMIA	--	-	--	-	28	2	--	-	--	-
..EUPODISCALES										
...COSCINODISCACEAE										
....CYCLOTELLA	26	1	--	-	70	4	--	-	--	-
....MELOSIRA	--	-	--	-	--	-	--	-	110#	28
....STEPHANODISCUS	--	-	13	11	--	-	--	-	--	-
..FRAGILARIALES										
...FRAGILARIACEAE										
....SYNEDRA	*	0	--	-	14	1	--	-	--	-
..NAVICULALES										
...CYMBELLACEAE										
....CYMBELLA	*	0	--	-	--	-	--	-	--	-
...GOMPHONEMACEAE										
....GOMPHONEMA	*	0	13	11	--	-	--	-	--	-
...NAVICULACEAE										
....NAVICULA	130	5	--	-	--	-	--	-	230#	55
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHLOROCOCCACEAE										
....TETRAEDRON	--	-	13	11	28	2	13	14	--	-
...MICRACTINIACEAE										
....MICRACTINIUM	--	-	13	11	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	26#	22	28	2	13	14	--	-
....KIRCHNERIELLA	--	-	--	-	84	5	--	-	--	-
....SELENASTRUM	--	-	13	11	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	100	4	--	-	--	-	--	-	--	-
....CRUCIGENIA	--	-	--	-	84	5	--	-	--	-
....GLOEOACTINIUM	--	-	--	-	560#	32	--	-	--	-
....SCENEDESMUS	*	0	26#	22	140	8	26#	29	--	-
....TETRASTRUM	--	-	--	-	280#	16	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	28	2	--	-	--	-
CHRYSOPHYTA										
.CHRYSOPHYCEAE										
..OCHROMONADALES										
...SYNURACEAE										
....MALLOMONAS	--	-	--	-	28	2	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONADALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	--	-	84	5	--	-	--	-
...CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	--	-	56	3	26#	29	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	28	2	--	-	--	-
..OSCILLATORIALES										
...OSCILLATORIACEAE										
....OSCILLATORIA	1800#	67	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....TRACHELOMONAS	--	-	--	-	42	2	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

RIO GRANDE BASIN
08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM -- Continued
WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
PERIPHYTON

DATE	TIME	LENGTH OF EXPO-SURE (DAYS) (00022)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70958)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS) (70950)	SAMPLING METHOD
OCT								
16...	1016	28	23.3	14.6	104	20.6	83.7	Polyethylene strip

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
16...	1016	8.5	13.5	10	.23	90
JAN						
21...	1300	2020	9.0	5	27	99
MAR						
18...	1100	10	10.5	3	.08	99
MAY						
22...	0930	2180	13.5	11	65	99
JUL						
17...	0830	1410	16.0	5	19	91
SEP						
18...	0830	15	16.0	9	.36	85

08362000 CABALLO RESERVOIR NEAR ARREY, NM

LOCATION.--Lat 32°53'47", long 107°17'30", in SE¼SW¼ sec.19, T.16 S., R.4 W., Sierra County, Hydrologic Unit 13030101, 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 mi^2 (79,510 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--February 1938 to September 1965 (monthend contents only), October 1965 to current year.

REVISED RECORDS.--WSP 978: 1942. WSP 1632: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 43.3 ft (13.20 m) National Geodetic Vertical Datum of 1929.

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 hm^3) 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 hm^3). 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 347,000 acre-ft (428 hm^3) Mar. 4, 1942, gage height, 4,182.06 ft (1,274.692 m); minimum daily contents, 118 acre-ft (0.145 hm^3), Oct. 14, 1938, gage height, 4,108.1 ft (1,252.15 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 157,000 acre-ft (194 hm^3) Feb. 27, gage height 4,162.10 ft (1,268.608 m); minimum daily contents, 5,160 acre-ft (6.36 hm^3) Sept. 14, gage height, 4,123.71 ft (1,256.907 m).

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

4,120	1,800	4,150	80,760
4,130	14,700	4,160	141,700
4,140	40,310	4,170	220,800

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17310	20260	25340	85790	130600	153500	66290	69900	96010	97250	65340	17570
2	17440	20420	28010	88250	131100	149800	65520	71750	96450	97650	63580	15750
3	17460	20510	30840	89400	133400	147700	65340	73330	97080	97880	61920	16580
4	17610	20600	33790	89460	135200	146200	65220	75000	97420	97940	60560	16880
5	17720	20670	36850	90080	136200	144500	65000	76800	98160	97940	58290	16730
6	17870	20790	38530	92620	137200	142900	64960	78590	99250	98160	55720	16520
7	17960	20900	38720	95190	137400	140900	64870	80420	100400	98450	54190	16240
8	18040	20970	39340	97650	136200	139100	64700	82320	101500	97130	53240	16440
9	18100	21080	42280	99420	135100	137200	64660	83620	102400	95570	52300	16260
10	18240	21170	45000	100200	136900	135000	64530	84980	102500	94480	51200	14620
11	18300	21240	47750	100400	138000	132500	64610	86360	102500	93880	50310	11460
12	18410	21340	50490	100500	139800	130000	64740	87250	102400	93330	50060	8100
13	18520	21410	52410	100700	142100	128900	65000	87310	102100	92890	50240	5770
14	18560	22240	52380	101200	142700	126300	65170	87200	101800	92070	50310	5160
15	18640	23100	52900	103000	143000	123500	64310	86830	101700	90560	50490	5250
16	18710	23190	55720	105800	143200	118600	63880	86780	101400	89400	50560	5440
17	18800	23310	58370	106900	145300	115700	63580	86730	100800	88410	50640	5590
18	18880	23400	61100	106900	147200	112400	64270	86780	100300	88040	50420	5770
19	18970	23500	63660	107400	149100	109000	65040	86780	99880	87520	50020	5950
20	19130	23620	65040	110100	151000	105600	65860	86890	99710	86990	49480	6160
21	19240	23720	65220	112700	152100	102000	65950	87670	99540	86100	48190	6350
22	19360	23850	65820	115100	151300	98390	65520	88560	99540	84530	46860	6560
23	19490	23950	68420	117900	151600	94640	64910	89820	99190	82920	45350	6770
24	19610	24200	70920	119200	153500	91190	64780	90920	98220	81210	44560	7010
25	19680	24270	73470	119200	155200	87830	65340	92070	97190	79220	42250	8260
26	19720	24270	76030	119900	156200	83620	65950	92890	96280	77720	38370	9570
27	19790	24270	77090	122200	157000	80180	66460	93220	95520	75930	35180	11040
28	19880	24440	77190	124600	156000	77240	67080	93550	95020	73750	31710	12440
29	19920	24520	77770	127000	---	74350	67610	93980	94860	70840	28090	12680
30	20020	24620	80660	129400	---	71100	68100	94530	95960	68960	24670	12940
31	20200	---	83170	130700	---	68240	---	95240	---	67170	21320	---
MAX	20200	24620	83170	130700	157000	153500	68100	95240	102500	98450	65340	17570
MIN	17310	20260	25340	85790	130600	68240	63580	69900	94860	67170	21320	5160
(†)	4132.58	4134.44	4150.48	4158.43	4161.96	4147.32	4147.29	4152.77	4152.90	4147.08	4133.07	4129.07
(‡)	+3040	+4420	+58550	+47530	+25300	-87760	-140	+27140	+720	-28790	-45850	-8380

CAL YR 1980 MAX 148100 MIN 15330 (‡) +9610
WTR YR 1981 MAX 157000 MIN 5160 (‡) -4220

(†) ELEVATION, IN FEET, AT END OF MONTH
(‡) CHANGE IN CONTENTS, IN ACRE-FEET

08362500 RIO GRANDE BELOW CABALLO DAM, NM

LOCATION.--Lat 32°53'05", long 107°17'31", in NE¼SW¼ sec.30, T.16 S., R.4 W., Sierra County, Hydrologic Unit 13030102, 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 mi^2 (79,510 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--January 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,140.9 ft (1,262.15 m) National Geodetic Vertical Datum of 1929. 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 than present datum.

REMARKS.--Flow regulated by Caballo Reservoir (station 08362000) capacity, 344,000 acre-ft (424 hm^3), 1958 survey and Elephant Butte Reservoir (station 08360500) capacity, 2,109,000 acre-ft (2.60 km^3), 1974 survey. Diversions for irrigation of about 800,000 acres (3,200 km^2) 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.

AVERAGE DISCHARGE.--43 years, 847 ft^3/s (23.99 m^3/s), 613,700 acre-ft/yr (757 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 7,650 ft^3/s (217 m^3/s) May 20, 1942; minimum daily, 0.1 ft^3/s (0.003 m^3/s) Oct. 31 to Nov. 14, 1954, Nov. 7 to Dec. 31, 1955, Feb. 15-29, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,260 ft^3/s (64.0 m^3/s) June 24, 25; minimum daily, 0.70 ft^3/s (0.020 m^3/s) Nov. 13-15, Dec. 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.90	1.2	1.6	1.6	1200	1560	1040	1580	1260	1670	2120
2	1.2	.90	1.0	1.6	1.6	1290	1660	560	1500	1260	1580	2220
3	1.3	.90	.80	1.7	1.6	973	1500	564	1560	1300	1440	2250
4	1.3	.90	.70	1.7	326	773	1480	683	1460	1330	1580	1790
5	1.3	1.0	.70	1.7	619	784	1460	867	1370	1230	1880	1420
6	1.4	1.0	.80	1.8	614	823	1350	1010	1280	1080	1790	1310
7	1.4	1.0	.90	1.8	609	839	1410	1060	1290	1530	1530	1190
8	1.4	1.0	1.0	1.8	604	874	1470	1200	1220	1940	1330	721
9	1.4	.90	1.1	1.7	604	931	1470	1320	1500	1940	1130	655
10	1.5	.80	1.2	1.7	483	1150	1380	1270	1770	1780	1250	903
11	1.5	.80	1.2	1.7	400	1240	1290	1220	1770	1640	1140	1410
12	1.5	.80	1.2	1.7	285	1310	1280	1600	1820	1610	853	1460
13	1.5	.70	1.2	1.6	2.0	1370	1280	1940	1830	1540	751	1340
14	1.5	.70	1.2	1.6	2.0	1410	1480	2070	1870	1850	779	172
15	1.5	.70	1.2	1.6	98	1410	1640	2060	1800	2010	689	13
16	1.5	.80	1.2	1.6	161	1460	1640	1920	1900	1940	800	5.0
17	1.4	.80	1.2	1.6	173	1570	1350	1900	2070	1710	665	2.8
18	1.4	.90	1.2	1.5	177	1660	1120	1900	2080	1570	811	19
19	1.3	1.0	1.3	1.5	204	1660	1110	1800	1980	1600	933	2.8
20	1.3	1.0	1.3	1.5	166	1740	983	1600	1890	1590	1050	2.8
21	1.2	1.1	1.3	1.5	159	1770	1320	1530	1830	1910	1050	2.8
22	1.1	1.2	1.4	1.5	154	1770	1600	1470	1820	2190	1040	2.7
23	1.1	1.3	1.4	1.5	153	1770	1590	1420	2080	2190	1030	2.6
24	1.1	1.4	1.4	1.5	154	1870	1280	1420	2260	2170	846	2.5
25	1.1	1.5	1.4	1.6	442	1920	1020	1410	2260	2200	1350	2.4
26	1.1	1.6	1.5	1.6	716	1990	1020	1650	2200	2180	1950	2.4
27	1.0	1.7	1.5	1.6	928	1790	1030	1850	2190	2140	1780	2.4
28	1.0	1.7	1.5	1.6	1160	1570	1060	1850	2090	2090	1890	2.4
29	1.0	1.5	1.5	1.6	---	1620	1060	1780	1980	2120	1910	2.4
30	1.0	1.3	1.6	1.6	---	1630	1060	1710	1750	1820	1960	2.4
31	.90	---	1.6	1.6	---	1590	---	1710	---	1680	2000	---
TOTAL	39.40	31.80	37.70	50.2	9397.8	43757	39953	45384	54000	54400	40457	19031.4
MEAN	1.27	1.06	1.22	1.62	336	1412	1332	1464	1800	1755	1305	634
MAX	1.5	1.7	1.6	1.8	1160	1990	1660	2070	2260	2200	2000	2250
MIN	.90	.70	.70	1.5	1.6	773	983	560	1220	1080	665	2.4
AC-FT	78	63	75	100	18640	86790	79250	90020	107100	107900	80250	37750
(†)	0	0	0	0	35	284	88	102	347	262	132	108

CAL YR 1980 TOTAL 332084.70 MEAN 907 MAX 2480 MIN .70 AC-FT 658700
WTR YR 1981 TOTAL 306539.30 MEAN 840 MAX 2260 MIN .70 AC-FT 608000

(†) DIVERSION, IN ACRE-FT, BY BONITA DITCH. BONITA DITCH DIVERTS DIRECTLY FROM CABALLO DAM AND THIS DIVERDION IS NOT INCLUDED IN THE RIVER RECORDS.

08364000 RIO GRANDE AT EL PASO, TX
(National stream-quality accounting network)

LOCATION.--Lat 31°48'10", long 106°32'25", El Paso County, Hydrologic Unit 13030102, 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 mi^2 (83,415 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

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) National Geodetic Vertical Datum of 1929. See WSP 1312 or 1732 for history of changes prior to Aug. 4, 1938.
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.
AVERAGE DISCHARGE.--44 years (water years 1938-81), 501 ft^3/s (14.19 m^3/s), 363,000 acre-ft/yr (448 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,000 ft^3/s (680 m^3/s) June 12, 1905; no flow at times. Maximum discharge since construction of Elephant Butte Dam in 1915, 13,500 ft^3/s (382 m^3/s) Sept. 3, 1925.
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,090 ft^3/s (59.2 m^3/s) July 31, gage height, 5.60 ft (1.707 m); maximum gage height, 5.68 ft (1.731 m) Sept. 7; minimum discharge, 45.1 ft^3/s (1.28 m^3/s) Feb. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	283	133	123	61.0	49.7	156	668	473	876	1210	1100	958
2	267	132	122	61.0	47.0	356	666	629	881	1080	1020	997
3	263	132	122	61.0	49.7	433	792	695	800	870	1020	1010
4	258	128	122	61.0	48.6	566	816	677	686	773	942	1000
5	253	127	122	61.0	52.2	506	657	390	808	860	901	1070
6	249	130	125	61.0	52.7	324	621	440	719	903	766	951
7	239	133	126	61.0	337	250	630	423	746	865	951	1290
8	223	132	125	61.0	471	243	579	446	716	711	1050	1270
9	203	131	120	61.0	531	301	501	444	696	702	911	1210
10	182	130	119	60.9	544	272	480	574	624	768	933	994
11	177	132	117	60.9	540	267	474	756	580	777	807	744
12	173	129	118	60.9	524	337	536	752	762	795	877	638
13	169	129	125	59.9	415	382	556	673	744	737	951	694
14	164	127	124	59.9	399	360	590	685	824	761	649	674
15	159	126	124	59.9	299	464	607	698	922	717	529	961
16	155	146	125	60.9	195	467	598	787	986	801	606	568
17	150	126	125	60.9	155	498	577	840	924	814	716	464
18	150	130	124	60.9	117	506	643	780	851	794	611	440
19	153	132	120	61.9	102	504	699	807	771	942	644	504
20	153	131	118	51.9	85.5	458	663	802	794	714	572	510
21	154	128	113	50.9	75.7	469	641	804	821	721	651	501
22	150	130	111	50.9	68.7	484	617	708	829	643	556	404
23	150	130	111	48.9	64.1	540	601	650	778	768	593	334
24	136	129	111	50.9	62.5	586	720	715	747	924	645	335
25	139	125	111	50.9	62.5	552	741	747	790	959	623	308
26	134	124	111	55.9	64.5	531	690	744	799	923	551	302
27	135	123	111	55.9	62.1	489	539	716	822	1050	469	346
28	155	123	111	52.9	65.1	538	527	719	911	1130	948	298
29	135	121	111	52.9	---	668	487	669	1260	1120	840	276
30	136	120	111	51.9	---	607	483	704	1190	1010	913	245
31	136	---	111	52.9	---	678	---	746	---	1440	940	---
TOTAL	5583	3869	3669	1782.8	5539.6	13792	18399	20693	24657	27282	24285	20296
MEAN	180	129	118	57.5	198	445	613	668	822	880	783	677
MAX	283	146	126	61.9	544	678	816	840	1260	1440	1100	1290
MIN	134	120	111	48.9	47.0	156	474	390	580	643	469	245
AC-FT	11074	7674	7277	3536	10988	27356	36494	41044	48906	54113	48169	40257

CAL YR 1980 TOTAL 178466.6 MEAN 488 MAX 1410 MIN 58.5 AC-FT 353983
WTR YR 1981 TOTAL 169847.4 MEAN 465 MAX 1440 MIN 47.0 AC-FT 336888

PERIOD OF RECORD.--Water years 1930 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1978 to current year.
WATER TEMPERATURES: January 1978 to current year.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,200 micromhos May 16, 1978; minimum daily, 642 micromhos March 31, 1980.
WATER TEMPERATURES: Maximum daily, 28.5°C June 6, 1981; minimum daily, 2.0°C Jan. 19, 1978.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,670 micromhos Jan 20; minimum daily, 730 micromhos June 20.
WATER TEMPERATURES: Maximum daily, 28.5° June 6; minimum daily, 5.5°C Nov. 13.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT												
09...	1030	183	2200	8.2	21.0	19.0	1.1	7.6	470	200	--	140
15...	0820	158	2127	8.4	--	17.0	--	--	480	220	--	140
NOV												
18...	0740	129	2260	8.1	--	15.0	--	--	500	230	--	150
DEC												
18...	0915	124	2380	8.2	--	7.0	--	--	510	220	--	150
JAN												
08...	1100	61	2100	8.3	10.5	10.0	57	--	450	180	--	130
23...	1000	49	2520	8.2	--	5.5	--	--	490	220	--	140
FEB												
18...	1220	133	1790	8.1	--	14.0	--	--	370	130	--	110
MAR												
05...	1100	630	900	8.4	8.5	9.0	--	9.8	--	--	--	--
18...	1100	615	897	7.9	--	11.0	--	--	240	70	--	73
APR												
14...	1630	590	1060	7.5	--	20.0	--	--	260	19	--	79
MAY												
06...	0900	440	1200	8.4	17.0	18.5	73	7.4	320	--	120	98
21...	0845	688	899	7.8	--	20.0	--	--	230	61	--	71
JUN												
15...	0800	743	925	7.7	--	23.0	--	--	250	67	--	76
JUL												
01...	1400	1210	800	8.3	27.5	26.0	120	6.4	240	--	75	71
15...	0800	632	994	7.7	--	24.5	--	--	260	77	--	78
AUG												
20...	0855	460	1300	7.9	--	--	--	--	320	110	--	96
SEP												
06...	1400	951	1000	8.2	27.5	23.5	160	7.2	250	--	62	76
15...	1320	1030	1000	7.9	--	23.5	--	--	260	77	--	78

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
OCT												
09...	30	300	6.0	12	270	--	520	270	.8	29	1460	1470
15...	31	280	5.6	11	260	--	500	250	--	27	--	1400
NOV												
18...	31	320	6.2	15	270	--	520	270	--	29	--	1500
DEC												
18...	33	350	6.7	11	290	--	530	290	--	28	--	1570
JAN												
08...	31	360	7.4	9.3	--	270	500	280	.8	29	1540	1500
23...	34	380	7.5	10	270	--	620	330	--	29	--	1710
FEB												
18...	24	250	5.6	8.0	240	--	350	210	--	23	--	1120
MAR												
05...	--	--	--	--	--	--	--	--	--	--	--	--
18...	14	110	3.1	5.4	170	--	--	--	--	18	--	--
APR												
14...	15	120	3.2	7.2	180	--	200	95	--	19	--	643
MAY												
06...	19	160	3.9	7.8	--	200	270	130	.5	21	831	828
21...	13	94	2.7	6.3	170	--	180	68	--	18	--	553
JUN												
15...	14	100	2.8	6.4	180	--	190	76	--	20	--	591
JUL												
01...	14	87	2.5	6.6	--	160	180	65	.5	18	558	539
15...	15	110	3.1	7.3	180	--	200	83	--	21	--	623
AUG												
20...	19	160	4.1	9.0	210	--	270	140	--	23	--	843
SEP												
06...	15	110	3.0	7.1	--	190	210	88	.6	20	687	641
15...	15	110	3.1	7.0	180	--	210	89	--	21	--	638

08364000 RIO GRANDE AT EL PASO, TX -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
OCT												
09...	.40	.43	.050	.060	1.5	1.9	.170	30	10	--	8.1	.9
15...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
18...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
18...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
08...	.35	.31	.150	.130	.85	1.4	.310	--	--	13	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
18...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
05...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
14...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
06...	.38	.33	.110	.080	1.1	1.6	.430	90	10	--	6.5	1.1
21...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
15...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
01...	.28	.27	.120	.060	1.1	1.5	.390	--	--	7.2	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
20...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
06...	.16	.09	<.060	.090	--	1.5	.360	<10	5	--	3.9	.9
15...	--	--	--	--	--	--	--	--	--	--	--	--

08364000 RIO GRANDE AT EL PASO, TX -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)
OCT										
09...	1030	6	6	100	100	0	0	10	0	1
MAY										
06...	0900	10	7	200	100	0	<1	10	10	1
SEP										
06...	1400	7	6	200	75	1	<1	10	10	4

DATE	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)
OCT										
09...	0	11	2	1500	30	8	2	220	10	.0
MAY										
06...	<3	12	3	3400	90	9	7	340	10	.1
SEP										
06...	0	13	2	6200	<10	17	2	430	5	.1

DATE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT									
09...	.0	8	0	0	0	0	0	30	20
MAY									
06...	.0	5	1	0	0	0	0	30	10
SEP									
06...	.0	10	2	0	0	0	0	40	9

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT				
09...	1030	2800	190	2300
JAN				
08...	1100	--	930	2500
MAR				
05...	1100	--	400	8400
MAY				
06...	0900	--	80	460
JUL				
01...	1400	--	420	1250
SEP				
06...	1400	--	1570	430

08364000 RIO GRANDE AT EL PASO, TX -- Continued

WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
IDENTIFICATION OF PHYTOPLANKTON

DATE	OCT 9,80		JAN 8,81		MAR 5,81		MAY 6,81		JUL 1,81		SEP 6,81	
TIME	1030		1100		1100		0900		1400		1400	
TOTAL CELLS/ML	5100		430		25000		17000		11000		29000	
DIVERSITY: DIVISION	1.2		0.9		1.7		1.5		1.2		1.5	
.CLASS	1.2		0.9		1.7		1.5		1.2		1.5	
..ORDER	2.0		2.3		2.6		2.4		2.2		2.1	
...FAMILY	2.1		2.5		2.8		2.5		2.3		2.4	
....GENUS	2.1		2.5		3.0		3.3		2.9		3.1	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)												
.BACILLARIOPHYCEAE												
..ACHNANTHALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	--	-	98	1	--	-	--	-
....COCCONEIS	--	-	13	3	--	-	98	1	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	*	0	--	-	--	-	--	-
..BACILLARIALES												
...NITZSCHIACEAE												
....HANTZSCHIA	--	-	--	-	--	-	98	1	--	-	--	-
....NITZSCHIA	2900#	57	180#	42	4800#	19	1300	8	400	4	310	1
..EPITHEMIALES												
...EPITHEMIACEAE												
....RHOPALODIA	--	-	--	-	*	0	--	-	--	-	--	-
..EUPODISCALES												
...COSCINODISCACEAE												
....CYCLOTELLA	370	7	--	-	2700	11	4400#	27	2100#	19	1500	5
....MELOSIRA	67	1	--	-	--	-	1400	8	330	3	3200	11
....STEPHANODISCUS	--	-	--	-	--	-	98	1	--	-	--	-
..FRAGILARIALES												
...FRAGILARIACEAE												
....ASTERIONELLA	--	-	--	-	420	2	--	-	--	-	--	-
....FRAGILARIA	--	-	--	-	--	-	--	-	260	2	--	-
....SYNEDRA	--	-	13	3	*	0	--	-	--	-	--	-
..NAVICULALES												
...CYMBELLACEAE												
....CYMBELLA	--	-	--	-	--	-	--	-	66	1	--	-
...ENTOMONEIDACEAE												
....ENTOMONEIS	67	1	26	6	--	-	--	-	--	-	--	-
...GOMPHONEMACEAE												
....GOMPHONEMA	--	-	--	-	170	1	98	1	--	-	--	-
...NAVICULACEAE												
....ANOMOEONEIS	--	-	--	-	*	0	--	-	--	-	--	-
....CALONEIS	--	-	--	-	*	0	--	-	--	-	--	-
....DIPLONEIS	--	-	--	-	*	0	--	-	--	-	--	-
....GYROSIGMA	--	-	--	-	170	1	--	-	--	-	--	-
....NAVICULA	240	5	90#	21	2200	9	690	4	99	1	--	-
..SURIRELLALES												
...SURIRELLACEAE												
....SURIRELLA	--	-	26	6	--	-	--	-	66	1	--	-
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHLOROCOCCACEAE												
....SCHROEDERIA	--	-	--	-	--	-	--	-	99	1	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	--	-	170	1	490	3	130	1	1600	5
....KIRCHNERIELLA	100	2	--	-	--	-	--	-	66	1	210	1
....SELENASTRUM	--	-	--	-	420	2	--	-	--	-	*	0
...SCENEDESMACEAE												
....COELASTRUM	--	-	--	-	1300	5	--	-	260	2	--	-
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-	420	1
....GLOEOACTINIUM	--	-	--	-	--	-	790	5	--	-	1900	6
....SCENEDESMUS	67	1	--	-	--	-	1400	8	66	1	8500#	29
....TETRASTRUM	--	-	--	-	1000	4	1900	11	130	1	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CARTERIA	--	-	--	-	--	-	--	-	--	-	620	2
....CHLAMYDOMONAS	300	6	52	12	*	0	98	1	--	-	830	3
...PHACOTACEAE												
....PHACOTUS	--	-	--	-	170	1	--	-	--	-	210	1
....PTEROMONAS	--	-	--	-	--	-	290	2	--	-	*	0
...POLYBLEPHARIDACEAE												
....MESOSTIGMA	--	-	--	-	--	-	--	-	--	-	*	0
CHRYSOPHYTA												
.XANTHOPHYCEAE												
..MISCHOCOCCALES												
...CHLOROBOTRYDACEAE												
....DICHOTOMOCOCCUS	--	-	--	-	2200	9	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08364000 RIO GRANDE AT EL PASO, TX -- Continued

WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
IDENTIFICATION OF PHYTOPLANKTON

DATE	OCT 9,80		JAN 8,81		MAR 5,81		MAY 6,81		JUL 1,81		SEP 6,81	
TIME	1030		1100		1100		0900		1400		1400	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONADALES												
...CRYPTOCHRYSIDACEAE												
....CHROOMONAS	--	-	13	3	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	67	1	--	-	250	1	--	-	2600#	23	7300#	25
..NOSTOCALES												
...HAMMATOIDEACEAE												
....RAPHIDIOPSIS	--	-	--	-	--	-	590	4	--	-	--	-
..OSCILLATORIALES												
...OSCILLATORIACEAE												
....LYNGBYA	--	-	--	-	--	-	--	-	3000#	27	830	3
....OSCILLATORIA	910#	18	--	-	8600#	34	2800#	17	1400	13	1700	6
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	34	1	13	3	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
09...	1030	183	19.0	65	32	67
JAN						
08...	1100	61	10.0	91	15	82
MAR						
05...	1100	630	9.0	497	845	50
MAY						
06...	0900	440	18.5	152	181	98
JUL						
01...	1400	1210	26.0	226	738	99
SEP						
06...	1400	951	23.5	284	729	91

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2240	2310	2280	2520	966	1010	926	1150	741	882	1270	1020
2	2090	2300	2520	2520	1120	1050	875	1030	884	834	1220	1810
3	2070	2150	2300	2520	2100	973	916	1020	761	898	802	1540
4	2080	2380	2350	2490	2380	994	983	886	857	877	1280	2030
5	2110	2330	2490	2510	908	966	1050	1020	863	874	932	2040
6	2090	2280	2310	2500	1690	868	997	886	1010	963	790	2040
7	2230	2370	2420	2450	1790	941	1110	1030	919	817	1400	1790
8	2090	2330	2020	2610	2220	1040	1070	1050	957	847	1270	2030
9	2050	2380	2450	2260	1140	880	935	1070	783	857	1020	2030
10	2060	2290	2450	2470	2000	1080	931	878	849	905	1270	1780
11	2090	2260	2400	2370	1790	968	1070	1020	811	1000	1220	1710
12	2110	2140	2420	2500	973	886	1040	828	872	1020	1060	1790
13	1950	2200	2370	2500	2250	977	1110	1020	880	926	1210	1750
14	2040	2190	2380	2580	1990	875	1010	1010	837	976	1270	1810
15	2140	2260	2390	2470	1900	875	1060	1240	863	901	1320	894
16	1980	2200	2280	2490	2010	974	1080	1030	852	876	1250	1750
17	2210	2280	2370	2500	2360	898	948	1030	1030	826	904	1820
18	1970	2350	2040	2440	1790	1040	1060	1050	962	1150	1240	1770
19	2120	2300	2340	2400	2260	873	1050	871	762	845	1250	1810
20	2110	2140	2340	2670	1790	1010	972	910	730	1020	952	2030
21	1940	2250	2340	2420	1080	952	1110	910	736	753	1240	1830
22	1960	2190	2440	2520	2230	949	1150	1020	861	759	912	932
23	1920	2270	2320	2430	888	848	1090	1010	796	876	1220	1790
24	2220	2350	2350	2600	1040	1070	1020	953	852	735	929	1810
25	2110	2280	2500	2580	1760	1040	983	953	1030	738	763	1680
26	2340	2260	2340	2520	1200	1110	911	1070	854	748	887	2030
27	2150	2240	2300	2600	2230	963	1020	902	834	833	1270	1750
28	2100	2300	2090	2510	1420	815	1160	962	842	739	917	1750
29	2170	2250	2360	2540	---	983	975	1010	972	930	889	2030
30	2180	2230	2390	2510	---	1000	991	1260	802	758	903	1750
31	2030	---	2530	2490	---	1020	---	1010	---	767	1070	---
MEAN	2100	2270	2350	2500	1690	965	1020	1000	860	869	1090	1750

WTR YR 1981 MEAN 1540 MAX 2670 MIN 730

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.5	13.5	12.5	10.0	8.0	8.0	11.5	14.5	22.5	19.0	14.5	24.0
2	16.0	12.0	12.0	9.5	8.0	8.0	12.5	15.0	25.0	17.5	16.5	21.5
3	15.0	9.5	12.5	8.5	8.5	8.5	11.0	15.5	18.5	16.5	17.0	22.0
4	14.5	6.5	11.0	7.0	9.5	9.0	10.0	16.0	19.0	16.0	23.5	20.0
5	12.5	8.0	10.5	8.0	10.0	9.5	9.5	17.5	27.0	15.5	27.5	18.5
6	12.0	8.5	8.5	8.0	8.0	8.5	13.5	17.0	28.5	17.0	26.0	20.0
7	15.5	10.5	10.0	9.0	7.5	9.0	14.0	18.0	26.0	21.5	20.0	17.5
8	16.5	13.0	12.0	9.0	6.5	10.0	13.5	18.5	19.0	20.5	19.5	18.5
9	17.0	9.0	13.5	10.5	7.0	10.0	12.0	17.5	26.5	19.5	13.0	17.0
10	12.0	9.5	8.0	8.0	6.5	11.5	16.5	15.5	24.0	20.5	17.5	16.0
11	10.5	8.0	8.0	9.5	8.0	12.0	9.5	14.0	19.5	16.5	16.0	15.0
12	8.5	6.5	7.5	13.0	9.5	10.5	10.0	13.0	22.5	12.0	15.0	20.5
13	10.0	5.5	7.0	13.5	10.0	9.5	12.5	18.0	20.5	14.5	18.5	19.0
14	8.0	6.5	8.0	14.0	10.0	8.0	13.5	20.5	19.0	17.0	20.5	14.5
15	9.5	7.0	9.0	15.0	8.5	9.5	12.5	19.0	21.5	16.5	24.5	20.0
16	12.0	8.0	9.5	9.5	8.5	10.0	14.5	17.5	20.0	16.0	17.0	21.0
17	14.5	6.5	10.5	8.0	7.0	10.5	14.5	16.0	17.5	15.5	16.5	19.0
18	10.5	7.0	11.0	7.5	6.5	11.0	16.5	15.5	26.5	16.0	18.0	18.5
19	9.0	8.5	10.0	6.5	7.5	12.5	17.5	14.0	19.0	17.0	13.5	16.5
20	7.5	6.5	12.0	6.0	7.0	10.5	12.0	15.0	20.5	25.5	20.5	14.0
21	13.5	7.0	13.5	7.5	8.0	12.5	13.5	15.5	25.0	20.0	21.5	11.5
22	12.0	7.5	10.0	9.0	9.5	13.0	11.5	16.0	24.0	19.5	21.0	12.0
23	6.5	9.5	9.5	9.5	10.0	11.0	15.5	17.5	20.5	18.5	18.0	15.5
24	7.0	10.0	8.0	10.5	9.5	11.5	10.5	18.0	17.0	14.5	24.0	18.0
25	8.5	11.5	8.5	7.0	8.0	11.0	17.0	18.5	26.5	18.0	14.5	10.5
26	10.5	13.5	10.0	7.5	8.0	11.5	14.5	19.0	19.5	13.5	16.5	11.0
27	11.5	14.0	11.5	6.5	10.0	12.0	12.5	20.5	20.5	18.0	23.5	15.0
28	15.0	15.5	10.5	8.0	11.0	12.5	10.5	21.5	24.5	17.5	27.0	18.0
29	14.5	13.5	10.0	9.0	---	11.0	15.5	22.5	25.0	15.5	23.0	17.0
30	16.0	10.5	9.5	9.0	---	11.5	13.0	25.0	18.0	14.5	18.0	16.5
31	13.5	---	9.0	10.0	---	12.0	---	24.5	---	18.0	19.5	---
MEAN	12.0	9.5	10.0	9.0	8.5	10.5	13.0	17.5	22.0	17.5	19.5	17.5

WTR YR 1981 MEAN 14.0 MAX 28.5 MIN 5.5

RIO GRANDE BASIN
08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX
(National stream-quality accounting network)

LOCATION.--Lat 31°05'05", long 105°36'25", Hudspeth County, Hydrologic Unit 13040201, at gaging station on the rectified channel of the Rio Grande, 1.5 mi (2.4 km) downstream from Old Fort Quitman, and 81.7 mi (131.5 km) downstream from the American Dam at El Paso.
DRAINAGE AREA.--31,944 mi^2 (82,735 km^2), United States and Mexico; from International Boundary and Water Commission Water Bulletin No. 46.
PERIOD OF RECORD.--Water years 1930 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to current year.
WATER TEMPERATURES: October 1974 to current year.
REMARKS.--Records of discharge for water year 1980 are given in International Boundary and Water Commission Water Bulletins Nos. 49 and 50.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 13,000 micromhos May 18, 1977; minimum daily, 368 micromhos Aug. 9, 1978.
WATER TEMPERATURES: Maximum 39.5°C Sept. 5, 1979; minimum daily, 0.5°C Jan. 25, 1978.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE.--Maximum daily 8,560 micromhos Mar. 30; minimum daily, 2,150 micromhos Sept. 10.
WATER TEMPERATURES.--Maximum 30.5°C May 27; minimum 3.0°C Jan. 17.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT												
09...	1430	218	4000	8.3	28.5	23.5	3.8	9.4	770	500	--	220
JAN												
09...	1030	66	6000	8.3	7.0	8.0	54	--	1100	790	--	290
MAR												
04...	1030	33	7000	8.2	8.0	9.0	32	10.3	1400	1100	--	360
MAY												
07...	1000	93	4500	8.2	20.0	20.0	230	7.8	830	--	600	230
JUL												
01...	0800	52	6500	8.1	22.5	22.5	130	7.0	1200	--	990	330
SEP												
05...	1000	29	6000	8.3	22.5	22.0	150	8.4	1100	--	840	310

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
OCT												
09...	54	650	10	14	270	--	740	830	.9	27	2790	2710
JAN												
09...	82	890	12	12	--	270	960	1300	.9	27	3770	3730
MAR												
04...	110	1100	13	12	--	250	1300	1800	.6	23	4980	4860
MAY												
07...	61	710	11	1.3	--	230	730	980	.7	23	3050	2880
JUL												
01...	98	1100	14	14	--	240	1200	1600	.7	28	4680	4520
SEP												
05...	82	910	12	15	--	270	1000	1400	.7	33	4120	3910

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT												
09...	1.6	1.6	.090	.100	9.6	11	1.20	30	30	--	14	3.3
JAN												
09...	1.3	.38	.300	.350	1.1	2.7	.380	--	--	9.7	--	--
MAR												
04...	.01	.00	.140	.160	1.1	1.2	.110	50	690	--	19	1.5
MAY												
07...	.80	.74	.100	.090	2.1	3.0	.740	60	20	--	8.5	2.2
JUL												
01...	.11	.04	.100	.020	1.4	1.6	.240	--	--	11	--	--
SEP												
05...	.25	.11	.110	.120	1.5	1.9	.330	40	30	--	4.2	1.8

RIO GRANDE BASIN
08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX
(National stream-quality accounting network)

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)
OCT										
09...	1430	9	8	200	100	1	0	20	10	4
MAR										
04...	1030	6	5	300	300	0	0	10	10	2
MAY										
07...	1000	13	9	300	200	0	0	20	10	3
SEP										
05...	1000	10	8	100	0	0	1	20	20	2

DATE	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)
OCT										
09...	0	19	1	790	30	17	2	560	30	.2
MAR										
04...	1	3	4	780	50	8	0	740	690	.1
MAY										
07...	0	14	2	9700	60	8	4	690	20	.1
SEP										
05...	1	9	2	4200	40	6	3	580	30	.2

DATE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT									
09...	.1	15	2	0	1	0	0	80	30
MAR									
04...	.0	1	2	0	0	0	0	20	120
MAY									
07...	.0	9	0	0	0	0	0	50	30
SEP									
05...	.0	6	2	0	0	0	0	50	30

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT				
09...	1430	4100	310	220
JAN				
09...	1030	--	57	180
MAR				
04...	1030	--	49	4200
MAY				
07...	1000	--	370	380
JUL				
01...	0800	--	2900	340
SEP				
05...	1000	--	310	930

08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX
(National stream-quality accounting network)

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
IDENTIFICATION OF PHYTOPLANKTON

DATE	OCT 9,80		JAN 9,81		MAR 4,81		MAY 7,81		JUL 1,81		SEP 5,81	
TIME	1430		1030		1030		1000		0800		1000	
TOTAL CELLS/ML	52000		2200		10000		100000		33000		29000	
DIVERSITY: DIVISION	1.0		1.1		0.5		1.7		0.9		1.6	
.CLASS	1.0		1.1		0.5		1.7		0.9		1.6	
..ORDER	2.2		1.9		1.6		2.6		2.1		2.6	
...FAMILY	2.3		2.0		1.7		2.9		2.2		2.9	
....GENUS	2.9		2.0		1.7		3.3		2.5		3.1	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)												
.BACILLARIOPHYCEAE												
..ACHNANTHALES												
...ACHNANTHACEAE												
....ACHNANTHES	770	1	--	-	--	-	4000	4	--	-	--	-
..BACILLARIALES												
...NITZSCHIACEAE												
....NITZSCHIA	11000#	22	180	8	6800#	69	8000	8	2800	9	3900	13
..BIDDULPHIALES												
...BIDDULPHIACEAE												
....BIDDULPHIA	--	-	--	-	--	-	--	-	--	-	150	1
...CHAETOCERACEAE												
....CHAETOCEROS	--	-	--	-	--	-	--	-	3000	9	--	-
..EUPODISCALES												
...COSCINODISCACEAE												
....CYCLOTELLA	13000#	26	1300#	59	1300	13	19000#	18	17000#	51	3100	11
....MELOSIRA	9600#	18	--	-	--	-	4000	4	2100	6	1300	5
..FRAGILARIALES												
...FRAGILARIACEAE												
....SYNEDRA	1500	3	--	-	150	1	--	-	230	1	--	-
..NAVICULALES												
...ENTOMONEIDACEAE												
....ENTOMONEIS	--	-	80	4	73	1	--	-	230	1	--	-
...NAVICULACEAE												
....NAVICULA	380	1	100	5	580	6	2000	2	1400	4	1000	4
..SURIRELLALES												
...SURIRELLACEAE												
....SURIRELLA	--	-	--	-	73	1	--	-	--	-	--	-
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHLOROCOCCACEAE												
....TETRAEDRON	--	-	--	-	--	-	--	-	470	1	--	-
...DICTYOSPHAERIACEAE												
....DICTYOSPHAERIUM	--	-	--	-	220	2	2500	2	470	1	--	-
...MICRACTINIACEAE												
....MICRACTINIUM	--	-	--	-	--	-	3500	3	--	-	1500	5
...OOCYSTACEAE												
....ANKISTRODESMUS	1900	4	--	-	73	1	3000	3	--	-	3600	12
....CHODATELLA	--	-	--	-	--	-	*	0	470	1	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-	--	-	150	1
...SCENEDESMACEAE												
....ACTINASTRUM	--	-	--	-	--	-	2000	2	--	-	--	-
....CRUCIGENIA	--	-	--	-	--	-	--	-	930	3	--	-
....SCENEDESMUS	3800	7	80	4	--	-	8000	8	--	-	2400	8
....TETRASTRUM	3100	6	--	-	--	-	4000	4	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CARTERIA	770	1	--	-	--	-	--	-	--	-	--	-
....CHLAMYDOMONAS	4200	8	100	5	440	4	5000	5	930	3	450	2
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONADALES												
...CRYPTOCHRYSIDACEAE												
....CHROOMONAS	--	-	20	1	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....AGMENELLUM	--	-	--	-	--	-	4000	4	2800	9	--	-
..NOSTOCALES												
...NOSTOCACEAE												
....ANABAENOPSIS	--	-	--	-	--	-	--	-	--	-	3300	11
..OSCILLATORIALES												
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	--	-	32000#	31	--	-	7800#	27
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	770	1	340#	15	220	2	1500	1	--	-	150	1
....LEPOCINCLIS	--	-	--	-	--	-	--	-	--	-	150	1
....PHACUS	380	1	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX
(National stream-quality accounting network)

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
09...	1430	218	23.5	607	357	54
JAN						
09...	1030	66	8.0	83	15	83
MAR						
04...	1030	33	9.0	109	9.7	69
MAY						
07...	1000	93	20.0	459	115	95
JUL						
01...	0800	52	22.5	314	44	94
SEP						
05...	1000	29	22.0	148	12	91

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3400	4270	4130	4400	6400	7310	8010	5240	6120	6750	2830	6560
2	3660	4260	4220	4400	6400	7310	8280	5390	6430	6610	2820	6100
3	3690	4090	4440	4620	6290	7160	8210	5510	5100	3110	3120	6020
4	3670	4060	5030	4620	6030	7290	8420	3170	5100	3520	3120	6030
5	3790	4290	4170	4560	6020	7290	8420	2670	4490	3610	3520	5170
6	3880	4270	4150	4620	6330	7290	8080	3400	4470	3990	3510	5180
7	4350	4290	4040	4750	6310	7290	8140	4730	4160	4110	3730	4210
8	3850	4620	4330	5750	6350	7430	8080	5810	4140	3360	2970	2920
9	3840	4580	4150	6020	6350	7450	7590	6090	5770	3390	2220	2900
10	4120	4500	4180	5260	6610	7310	8140	6980	5800	5890	2220	2150
11	4330	4400	4130	5260	6630	7330	7110	6930	6820	6250	2920	2590
12	4510	4350	4100	5750	6770	7980	8010	6380	7270	5680	2910	2550
13	4400	4560	4150	5820	6770	7160	8010	6950	7590	5820	2350	3830
14	4610	4600	4150	5820	6810	7290	8140	7010	7590	5840	2340	3940
15	4630	4360	4150	5570	6340	7450	7710	6850	7830	6940	2340	3930
16	4910	4520	4440	5570	6330	6880	7830	6440	7890	7110	3140	3820
17	5100	4500	4370	5660	6580	7980	7890	5020	7950	7110	---	3990
18	4760	4440	4410	4600	6550	7310	7540	5020	7950	7560	---	3970
19	4860	4020	4620	4600	6780	7310	7590	5010	7950	6510	3160	3400
20	4160	4200	4020	4560	7280	7310	7060	5010	8010	6490	3310	3460
21	4140	4070	4000	4580	7200	7650	7710	5020	8420	6350	3320	4200
22	4080	4070	4360	4560	7500	7630	7590	4990	8350	8020	3480	4180
23	4310	4200	4300	4480	7470	7820	7540	4990	8320	7960	3680	4280
24	4330	4140	4530	4680	7530	7470	6470	4990	8250	7130	3680	4310
25	4370	4190	4340	4700	7370	4770	6640	5010	8460	7280	3850	4210
26	4130	4120	4130	4930	7440	7800	7010	4990	8420	5260	3850	4200
27	4490	4090	4570	4930	7240	7980	4010	4860	6660	2450	5260	3890
28	4360	4090	4550	5600	7250	8190	3980	5270	6610	3140	6310	4260
29	4260	4150	4530	5600	---	8360	5050	4990	6750	3130	5830	4290
30	4060	4120	4550	5660	---	8560	5070	5020	6760	2850	7020	4260
31	4110	---	4470	---	---	8160	---	7050	---	2880	6550	---
MEAN	4230	4280	4310	5060	6750	7470	7310	5380	6850	5360	3630	4160

WTR YR 1981 MEAN 5400 MAX 8560 MIN 2150

08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX
(National stream-quality accounting network)

TEMPERATURE, WATER (DEG.°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	14.0	13.0	11.5	9.5	20.0	21.0	17.5	25.5	20.5	24.0	20.0
2	24.5	14.5	11.0	10.5	9.5	17.5	17.5	24.5	22.5	21.5	24.5	22.5
3	24.5	13.5	9.0	10.0	13.0	15.5	19.0	26.5	19.5	26.5	23.5	15.5
4	25.5	13.5	9.0	9.5	11.5	14.5	19.0	25.0	20.0	25.0	23.5	17.5
5	25.0	15.5	9.0	8.5	10.0	14.0	17.5	24.5	20.5	25.5	24.0	18.5
6	21.5	18.5	14.0	8.5	11.5	13.5	20.0	25.5	21.0	26.5	24.5	18.5
7	22.5	16.5	11.0	9.0	7.5	10.5	20.0	26.5	23.0	26.5	25.5	15.0
8	23.0	17.5	8.5	11.0	13.0	7.5	19.5	24.0	24.5	26.0	17.5	14.0
9	22.5	15.5	9.0	11.5	14.5	13.5	21.0	24.5	25.5	27.5	22.0	13.5
10	22.5	15.0	9.5	9.5	7.5	13.0	29.0	26.5	25.5	25.0	22.5	14.5
11	18.5	25.5	9.5	10.0	8.0	13.0	23.5	23.5	24.5	27.5	22.0	20.0
12	22.0	29.0	9.5	10.0	14.0	12.5	17.5	24.0	20.5	24.0	24.0	20.0
13	23.5	8.5	8.0	10.5	13.5	10.5	21.5	22.0	24.5	24.5	22.5	18.0
14	23.5	8.5	9.0	10.5	15.5	12.5	16.0	22.5	24.5	24.0	23.5	16.5
15	23.5	8.5	9.5	5.5	8.5	16.0	16.5	23.5	19.0	24.0	23.0	16.0
16	15.0	8.5	9.0	7.0	7.0	15.0	18.5	24.0	19.0	24.0	21.5	18.0
17	19.0	8.0	12.5	3.0	7.5	16.5	23.0	25.0	14.5	24.5	---	19.0
18	16.0	7.5	10.0	9.5	7.0	16.5	24.0	27.5	26.0	27.0	---	19.0
19	18.5	12.0	10.0	10.5	10.5	17.0	24.5	26.5	26.0	25.5	22.0	18.0
20	15.5	14.5	6.5	9.5	15.5	16.5	24.0	27.5	26.0	25.5	22.0	18.0
21	14.5	8.0	6.0	7.0	11.5	10.5	23.5	29.0	25.0	26.5	22.0	19.5
22	22.5	8.5	7.5	5.5	15.5	8.5	20.0	26.5	30.0	24.0	23.0	20.5
23	13.5	7.0	7.0	12.5	12.5	21.5	16.0	25.5	22.0	24.0	22.5	21.0
24	13.5	7.0	7.5	11.0	12.5	21.0	22.5	27.0	18.5	18.5	22.5	19.5
25	16.5	8.0	8.0	11.0	13.5	17.5	18.0	27.5	27.0	19.0	19.0	20.0
26	16.0	8.5	7.0	12.0	18.0	23.0	22.5	30.0	22.5	21.0	19.5	20.0
27	18.5	6.5	11.5	13.0	10.5	21.5	24.0	30.5	19.5	23.0	17.5	20.0
28	9.5	6.5	11.5	6.5	12.5	19.5	25.5	17.5	19.0	25.5	20.5	19.0
29	12.5	10.0	11.5	5.5	---	19.5	17.5	21.0	22.5	25.5	18.5	19.0
30	13.0	9.5	9.5	7.5	---	18.0	16.5	19.0	22.5	24.0	26.5	19.5
31	14.5	---	9.0	---	---	20.5	---	25.5	---	24.5	26.5	---
MEAN	19.0	12.0	9.5	9.0	11.5	15.5	20.5	25.0	22.5	24.5	22.5	18.5

WTR YR 1981 MEAN 17.5 MAX 30.5 MIN 3.0

08377900 RIO MORA NEAR TERRERO, NM
(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, Hydrolgic Unit 13060001, 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 mi^2 (137.8 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year.
GAGE.--Water-stage recorder and concrete control. Altitude of gage is 7,890 ft (2,450 m), from topographic map.
REMARKS.--Water-discharge records good except those for winter period, 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.
AVERAGE DISCHARGE.--18 years, 28.3 ft^3/s (0.801 m^3/s), 20,500 acre-ft/yr (25.3 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 820 ft^3/s (23.2 m^3/s) June 8, 1979, gage height, 4.15 ft (1.265 m); minimum determined, 0.90 ft^3/s (0.025 m^3/s) Jan. 12-14, 1964, but may have been less during periods of ice effect.
EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest flood since 1886 probably occurred Sept. 29, 1904 (based on statement for Pecos River near Pecos and history of that flood period).
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 178 ft^3/s (5.04 m^3/s) at 0315 hours Aug. 12, gage height, 2.41 ft (0.735 m), no other peak above base of 100 ft^3/s (2.8 m^3/s); minimum determined, 2.3 ft^3/s (0.065 m^3/s) Feb. 12, result of freezeup, but may have been less during periods of ice effect.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	8.4	5.7	4.3	4.0	5.5	6.0	34	21	17	10	43
2	8.2	7.8	5.4	4.2	4.5	5.5	7.3	42	22	22	12	38
3	8.4	7.7	5.4	4.6	4.5	6.0	6.6	48	21	15	18	41
4	8.1	7.9	5.5	4.7	4.2	6.0	6.2	42	21	13	20	54
5	7.8	7.3	5.5	4.5	4.5	5.5	6.0	37	22	12	26	79
6	7.6	7.1	5.4	4.5	5.0	5.5	7.0	34	25	13	24	77
7	7.4	7.2	5.2	4.2	5.0	5.5	8.1	32	21	17	27	74
8	7.6	6.9	5.0	4.2	5.5	5.6	9.8	28	20	15	29	74
9	7.3	6.5	5.0	4.1	5.5	5.6	11	25	19	15	27	73
10	7.2	6.4	4.9	4.1	5.0	6.0	13	23	18	15	31	76
11	7.0	6.4	5.3	4.0	4.5	5.5	15	21	18	21	40	71
12	7.3	6.4	5.2	4.5	4.8	5.0	15	20	17	17	128	68
13	7.2	6.8	5.2	4.0	5.0	5.0	18	19	15	16	88	61
14	7.3	7.0	5.1	3.7	5.5	5.0	18	18	15	14	74	56
15	8.5	5.4	5.0	3.5	5.4	5.5	13	18	14	14	74	52
16	8.3	5.0	5.0	3.5	5.0	5.0	13	18	14	14	69	53
17	7.9	4.5	5.2	3.5	5.5	5.0	18	17	13	13	62	51
18	7.5	5.0	5.2	4.0	5.5	5.0	21	16	12	15	60	47
19	7.9	6.0	4.6	4.0	5.0	5.5	20	16	11	13	64	43
20	7.9	7.0	4.9	4.0	5.5	5.5	21	16	11	11	65	40
21	7.7	6.5	4.8	4.1	5.5	5.5	21	15	9.8	10	59	37
22	7.9	6.5	5.1	4.2	5.4	5.5	23	14	8.9	9.5	55	35
23	8.0	7.0	4.9	4.5	5.4	5.5	23	13	8.6	9.2	50	33
24	6.7	6.0	4.3	5.0	5.5	5.6	21	14	8.1	10	44	31
25	7.2	5.0	4.7	4.8	5.8	5.7	21	13	8.7	8.7	41	29
26	7.7	5.5	4.5	4.5	5.5	5.8	27	12	7.8	11	39	27
27	8.4	6.0	4.5	4.6	5.0	5.7	29	12	9.3	14	43	25
28	6.0	6.0	4.4	4.5	5.5	5.8	26	12	12	11	47	23
29	8.6	6.1	4.4	4.5	---	5.8	26	15	14	9.8	42	22
30	8.9	5.8	4.1	4.5	---	5.5	30	17	20	11	38	21
31	8.9	---	4.5	4.2	---	6.0	---	19	---	9.8	36	---
TOTAL	240.9	193.1	153.9	131.5	143.0	171.1	500.0	680	457.2	416.0	1442	1454
MEAN	7.77	6.44	4.96	4.24	5.11	5.52	16.7	21.9	15.2	13.4	46.5	48.5
MAX	8.9	8.4	5.7	5.0	5.8	6.0	30	48	25	22	128	79
MIN	6.0	4.5	4.1	3.5	4.0	5.0	6.0	12	7.8	8.7	10	21
AC-FT	478	383	305	261	284	339	992	1350	907	825	2860	2880

CAL YR 1980 TOTAL 10596.7 MEAN 29.0 MAX 252 MIN 4.0 AC-FT 21020
WTR YR 1981 TOTAL 5982.7 MEAN 16.4 MAX 128 MIN 3.5 AC-FT 11870

PERIOD OF RECORD.--Water years 1963 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
NOV												
06...	1132	6.8	105	7.9	15.0	2.0	10.8	52	5	--	18	1.6
JAN												
08...	1100	4.0	138	8.4	9.0	.0	11.4	62	10	--	21	2.2
MAR												
05...	1320	5.5	140	8.2	7.0	.5	11.2	62	17	--	21	2.2
MAY												
06...	1225	32	77	7.9	14.5	8.0	9.3	33	--	4.0	11	1.3
JUN												
25...	1130	9.0	75	7.4	22.5	15.0	7.8	39	--	3.0	13	1.6
AUG												
26...	1100	37	80	7.6	19.5	9.5	7.1	32	--	.00	11	1.2

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
NOV												
06...	1.5	.1	.5	47	10	.5	.2	6.3	67	67	.00	.00
JAN												
08...	1.9	.1	.5	--	13	.5	.2	6.5	79	77	.00	.00
MAR												
05...	2.4	.1	.5	45	14	.5	.2	6.5	64	75	.06	.07
MAY												
06...	1.3	.1	.5	29	1.9	.5	.2	4.9	50	39	.06	.02
JUN												
25...	1.7	.1	.7	36	3.0	.2	.2	6.3	51	49	.36	.08
AUG												
26...	.9	.1	.4	34	<1.0	.3	.1	6.0	41	41	<.10	.11

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)
NOV												
06...	.090	.120	.40	.49	.010	--	--	--	2.2	--	--	--
JAN												
08...	.000	.000	.46	.46	.040	--	--	--	1.0	--	--	--
MAR												
05...	.070	.030	2.2	2.4	.020	.000	12	2	--	1.4	.2	.00
MAY												
06...	.060	.090	.53	.65	.030	--	--	--	5.7	--	--	--
JUN												
25...	.070	.070	.47	.90	.020	--	--	--	3.0	--	--	--
AUG												
26...	.100	.080	.23	--	<.010	--	13	<1	--	3.4	<.1	.00

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)
MAR											
05...	1320	2	2	100	30	<1	0	<1	0	1	<3
AUG											
26...	1100	0	1	100	20	<1	1	<1	0	1	<3

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)
MAR										
05...	3	< 10	10	12	7	< 10	< 4	0	2	.1
AUG										
26...	2	< 10	80	13	4	< 10	< 4	0	< 1	.0

DATE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
MAR										
05...	.0	<10	0	0	0	0	48	< 6.0	10	21
AUG										
26...	.0	<10	0	0	0	0	27	< 6.0	10	6

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L) (80020)
AUG									
26...	1100	<1.0	<.4	.5	<.4	.5	<.4	.04	.13

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39333)	CHLOR-DANE, TOTAL (UG/L) (39350)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)
AUG										
26...	1100	.00	0	.00	.0	.00	.0	.00	.0	.00

DATE	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39368)	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39373)	DI-AZINON, TOTAL (UG/L) (39570)	DI-ELDRIN TOTAL (UG/L) (39380)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39383)	ENDO-SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)
AUG										
26...	.7	.00	.0	.00	.00	.0	.00	.00	.0	.00

DATE	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39413)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39343)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	METHYL PARA-THION, TOTAL (UG/L) (39600)
AUG										
26...	.00	.0	.00	.0	.00	.0	.00	.00	.0	.00

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	METHYL TRI-THION, TOTAL (UG/L) (39790)	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39403)	TOTAL TRI-THION (UG/L) (39786)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PER-THANE TOTAL (UG/L) (39034)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
AUG										
26...	.00	.00	0	.0	.00	.00	.00	.00	.00	.00

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV			
06...	1132	0	16
JAN			
08...	1100	1	1
MAR			
05...	1320	0	3
MAY			
06...	1225	0	5
JUN			
25...	1130	7	66
AUG			
26...	1100	0	14

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
NOV					
06...	1132	6.8	2.0	2	.04
DEC					
15...	1000	5.0	.5	5	.07
JAN					
08...	1100	4.0	.0	2	.02
14...	1237	3.7	.0	12	.12
26...	1135	2.5	2.0	0	.00
FEB					
12...	1220	2.3	.5	2	.01
23...	1300	5.4	.5	2	.03
MAR					
05...	1320	5.5	.5	3	.04
26...	1020	5 .7	1.0	0	.00
APR					
10...	1030	10	1.5	1	.03
23...	1045	22	4.0	1	.06
MAY					
06...	1225	32	8.0	1	.09
07...	1055	31	5.0	1	.08
26...	1310	13	9.0	2	.07
JUN					
25...	1130	9.0	15.0	2	.05
JUL					
28...	1230	11	17.0	2	.06
AUG					
26...	1100	37	9.5	14	1.4
SEP					
25...	1030	29	7.5	1	.08

08378500 PECOS RIVER NEAR PECOS, NM

LOCATION.--Lat 35°42'30", long 105°40'55", in NE¼NE¼ sec.17, T.17 N., R.12 E., San Miguel County, Hydrologic Unit 13060001, in Santa Fe National Forest, on left bank 30 ft (9.1 m) downstream from bridge on private road, 270 ft (82 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 mi^2 (490 km^2).
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.
REVISED RECORDS.--WSP 898: Drainage area. WSP 1312: 1932(M).
GAGE.--Water-stage recorder. Datum of gage is 7,502.94 ft (2,286.896 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 27, 1977, at site 30 ft (9.1 m) upstream at same datum.
REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 75 acres (30 hm^2), 1959 determination, above station. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--62 years, 96.8 ft^3/s (2.741 m^3/s), 70,130 acre-ft/yr (86.5 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 4,500 ft^3/s (130 m^3/s) Sept. 21 or 22, 1929, gage height, 6.2 ft (1.89 m), from floodmark, from rating curve extended above 1,600 ft^3/s (45 m^3/s); minimum, 2.0 ft^3/s (0.057 m^3/s) Mar. 19, 1971, result of freezeup.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 29, 1904, was greatest since 1886, from information by local residents.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 432 ft^3/s (12.2 m^3/s) at 0415 hours Aug. 12, gage height, 3.04 ft (0.927 m), no other peak above base of 310 ft^3/s (8.8 m^3/s); minimum, 3.4 ft^3/s (0.096 m^3/s) Jan. 15, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	34	29	19	16	16	23	111	79	61	43	86
2	31	33	28	20	17	16	27	143	76	69	48	78
3	31	32	28	20	17	18	25	152	72	45	59	76
4	30	32	29	21	16	18	21	136	75	38	51	95
5	30	32	27	21	17	16	19	119	71	35	56	139
6	29	31	26	20	18	16	24	111	77	37	61	126
7	29	32	25	19	18	16	28	102	69	47	75	118
8	29	31	25	18	19	17	32	92	64	45	83	125
9	28	30	25	18	19	17	36	83	60	42	75	122
10	28	29	26	17	18	18	42	76	57	40	94	121
11	28	30	30	17	15	17	45	73	53	56	120	113
12	28	29	30	18	16	16	47	69	51	49	293	115
13	28	30	24	18	18	16	56	67	48	43	183	102
14	29	32	23	16	20	16	64	63	45	37	151	95
15	33	27	24	15	19	19	46	63	43	53	146	90
16	34	25	25	15	18	16	45	67	43	57	140	97
17	31	22	26	15	19	18	62	62	40	51	129	105
18	31	23	25	16	19	16	69	58	38	49	132	91
19	32	30	23	16	18	19	68	67	36	43	145	83
20	32	31	26	16	19	20	73	64	34	38	134	78
21	32	27	27	17	19	18	74	60	32	35	122	71
22	32	28	27	18	18	19	78	56	30	32	114	67
23	32	29	26	20	18	20	76	53	30	31	102	66
24	26	27	24	22	19	21	70	53	29	34	94	64
25	31	25	27	20	20	21	74	52	32	31	87	60
26	32	27	24	17	17	23	91	50	29	47	82	56
27	34	30	23	18	15	22	97	50	31	47	89	53
28	28	34	22	19	16	22	91	51	34	37	99	51
29	35	34	22	18	---	21	88	62	38	34	91	49
30	33	32	20	18	---	22	100	73	61	41	80	47
31	34	---	20	17	---	23	---	78	---	35	74	---
TOTAL	952	888	786	559	498	573	1691	2416	1477	1339	3252	2639
MEAN	30.7	29.6	25.4	18.0	17.8	18.5	56.4	77.9	49.2	43.2	105	88.0
MAX	35	34	30	22	20	23	100	152	79	69	293	139
MIN	26	22	20	15	15	16	19	50	29	31	43	47
AC-FT	1890	1760	1560	1110	988	1140	3350	4790	2930	2660	6450	5230

CAL YR 1980 TOTAL 37722 MEAN 103 MAX 705 MIN 20 AC-FT 74820
WTR YR 1981 TOTAL 17070 MEAN 46.8 MAX 293 MIN 15 AC-FT 33860

RIO GRANDE BASIN
08379500 PECOS RIVER NEAR ANTON CHICO, NM
(Surveillance network station)

LOCATION.--Lat 35°10'44", long 105°06'30", Guadalupe County, Hydrologic Unit 13060001, 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 808.0 (1,300.1 km). Water-quality sampling site 0.5 mi (0.8 km) upstream.
DRAINAGE AREA.--1,050 mi^2 (2,720 km^2), approximately (contributing area).

WATER-DISCHARGE RECORDS

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.
REVISED RECORDS.--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).
GAGE.--Water-stage recorder. Altitude of gage is 5,130 ft (1,560 m) from river-profile map. See WSP 1732 for history of changes prior to June 21, 1951.
REMARKS.--Water-discharge records fair. Diversions above station for irrigation of about 4,900 acres (2.0 km^2), 1959 determination, above and below station. Acequia del Bodo Juan Paiz (see table below) diverts water about 8 mi (13 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.
AVERAGE DISCHARGE.--68 years (1910-15, 1916-24, 1926-81), 128 ft^3/s (3.625 m^3/s), 92,740 acre-ft/yr (114 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,300 ft^3/s (1,140 m^3/s) June 1, 1937, gage height, 20.34 ft (6.200 m), from floodmarks, at site and datum then in use, by slope-area measurement; no flow at times.
EXTREMES OUTSIDE PERIOD OF RECORD.--The greatest flood since 1879 occurred Sept. 29, 1904, discharge about 73,000 ft^3/s (2,100 m^3/s), from information by a local resident.
EXTREMES FOR CURRENT YEAR.--Peak discharge above base 3,000 ft^3/s (85 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
July 1	1915	3490	98.8	7.98	2.432	Aug. 12	0430	4830	137	8.73	2.661
Aug. 10	2145	*a12100	343	12.77	3.892						

a From rating curve extended above 9,000 ft^3/s (250 m^3/s) on basis of slope-area measurement at gage-height 16.62 ft (5.066 m).

Minimum discharge, 0.03 ft^3/s (0.001 m^3/s) Apr. 9.

Discharge measurements, in cubic feet per second, of Acequia del Bodo Juan Paiz, Water Year October 1980 to September 1981

Nov. 13	12
June 24	3.6

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	3.2	36	12	5.1	1.4	.53	3.0	4.9	376	27	81
2	1.6	1.6	29	12	6.2	1.2	.36	3.5	4.2	304	26	130
3	1.4	2.3	27	13	5.0	1.6	.33	11	3.8	76	165	213
4	1.2	1.8	24	9.4	3.6	1.4	.12	39	3.8	37	389	336
5	1.2	1.9	23	10	1.4	1.2	.17	40	3.9	21	399	199
6	1.2	1.5	24	10	2.0	1.2	.20	31	4.5	19	132	245
7	1.2	1.3	26	10	2.4	.96	.33	21	5.1	18	128	221
8	1.2	1.7	23	8.5	2.0	.96	.15	11	4.2	17	126	185
9	1.2	.87	22	7.2	2.4	.96	.09	6.5	5.6	31	734	178
10	1.2	1.7	19	7.2	1.6	.96	.32	4.7	4.6	23	1140	163
11	1.2	3.0	17	11	.96	1.2	.25	6.0	4.9	41	677	148
12	1.2	3.1	18	10	1.2	1.1	.31	5.8	4.8	125	1870	137
13	1.2	2.7	18	10	1.2	.95	.39	5.1	4.5	27	688	116
14	1.2	6.3	27	11	.96	1.0	.73	4.3	4.5	24	410	103
15	1.2	8.0	27	11	.96	.93	1.5	4.5	4.7	23	294	94
16	1.2	8.1	24	9.4	1.4	.83	.80	4.3	4.4	26	242	65
17	1.2	8.4	21	11	1.6	.75	.66	4.0	4.6	40	550	72
18	1.2	8.9	20	10	1.4	.66	.95	5.3	4.8	42	806	112
19	1.2	8.3	18	18	1.4	.68	1.2	5.6	4.3	25	465	106
20	1.3	6.8	19	14	1.4	.69	1.7	5.0	4.4	15	326	100
21	1.2	7.5	19	11	1.4	.65	1.7	3.6	4.3	8.5	688	90
22	1.1	8.8	18	10	1.2	.55	2.1	4.0	4.5	5.0	616	85
23	.92	7.0	16	9.4	1.8	.68	2.9	4.0	4.6	3.6	258	90
24	2.2	6.6	20	10	1.6	.65	2.0	3.6	13	2.9	194	80
25	1.4	19	24	11	1.4	.60	2.0	4.0	4.4	5.0	156	70
26	3.5	25	20	6.2	1.4	.54	1.7	4.3	3.9	102	139	65
27	3.2	24	19	5.4	1.4	.49	3.8	4.3	3.6	297	134	60
28	4.6	23	21	3.9	1.4	.58	6.2	3.6	3.8	294	155	55
29	6.2	27	19	3.4	---	1.6	8.5	3.6	3.7	109	140	50
30	6.3	33	18	6.1	---	.46	4.1	4.3	3.9	67	123	45
31	4.5	---	16	6.6	---	.39	---	4.3	---	30	99	---
TOTAL	60.42	262.37	672	297.7	55.78	27.82	46.09	264.2	140.2	2234.0	12296	3694
MEAN	1.95	8.75	21.7	9.60	1.99	.90	1.54	8.52	4.67	72.1	397	123
MAX	6.3	33	36	18	6.2	1.6	8.5	40	13	376	1870	336
MIN	.92	.87	16	3.4	.96	.39	.09	3.0	3.6	2.9	26	45
AC-FT	120	520	1330	590	111	55	91	524	278	4430	24390	7330

CAL YR 1980	TOTAL	33942.64	MEAN	92.7	MAX	638	MIN	.85	AC-FT 67330
WTR YR 1981	TOTAL	20050.58	MEAN	54.9	MAX	1870	MIN	.09	AC-FT 39770

08380500 GALLINAS CREEK NEAR MONTEZUMA, NM

LOCATION.--Lat 35°39'07", long 105°19'06", San Miguel County, Hydrologic Unit 13060001, 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 74.4 (119.7 km).
DRAINAGE AREA.--84 mi^2 (220 km^2), 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.
REVISED RECORDS.--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).
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.
REMARKS.--Records fair except those for winter period, which are poor. Diversions for irrigation of about 80 acres (32 hm^2), 1959 determination, above station. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--65 years, 19.2 ft^3/s (0.544 m^3/s), 13,910 acre-ft/yr (17.2 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,120 ft^3/s (202 m^3/s) Aug. 2, 1966, gage height, 9.7 ft (2.96 m), from floodmarks, from rating curve extended above 500 ft^3/s (14 m^3/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 ft^3/s (0.006 m^3/s), Oct. 6-9, 1922, Sept. 21, Oct. 9-14, 1956, Dec. 13, 1964.
EXTREMES OUTSIDE PERIOD OF RECORD.--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.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft^3/s (5.7 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 29	2330	1300	36.8	4.64	1.414	Aug. 11	a2230	*1530	43.3	4.92	1.500
July 27	1500	1320	37.4	4.68	1.426	Aug. 20	2000	652	18.5	3.80	1.158

a About

Minimum discharge, 0.29 ft^3/s (0.008 m^3/s) Feb. 13, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	4.6	4.3	3.5	3.1	3.1	4.9	5.9	3.5	28	3.9	20
2	4.3	4.5	4.0	3.6	3.3	3.1	5.2	10	2.8	32	3.8	19
3	4.3	4.5	4.1	3.6	3.3	4.0	4.9	10	2.6	15	6.4	17
4	4.1	4.5	4.1	3.6	3.1	3.2	4.8	9.4	3.1	9.6	37	29
5	3.9	4.3	4.1	3.4	3.1	2.9	4.4	8.7	3.1	6.6	21	48
6	3.9	4.3	4.1	3.7	3.1	3.1	4.4	7.7	3.0	5.4	11	51
7	4.1	4.3	4.1	3.9	2.9	2.8	4.5	6.3	2.8	4.6	8.7	42
8	3.9	3.5	4.2	4.0	2.9	2.8	5.1	5.8	2.4	3.7	24	46
9	3.9	3.7	4.1	4.1	3.3	2.9	5.7	5.3	2.1	3.2	30	44
10	3.7	3.9	3.7	3.9	2.9	3.0	6.1	5.0	2.0	2.8	23	43
11	3.7	3.9	3.9	3.9	2.6	3.5	6.4	4.7	1.8	2.5	170	36
12	3.7	3.9	4.1	3.9	2.8	3.5	6.6	4.6	1.4	3.9	341	31
13	3.7	3.9	3.9	3.9	2.8	3.5	7.1	4.7	1.4	3.5	104	25
14	3.7	3.9	3.9	4.1	2.9	3.6	9.2	4.5	1.2	2.5	57	22
15	3.9	3.7	3.9	3.9	3.1	3.1	7.6	4.4	1.1	9.4	44	20
16	4.5	3.7	3.8	3.5	2.6	3.4	7.4	4.5	1.1	4.3	55	20
17	4.5	3.5	3.8	3.3	2.4	4.2	7.8	4.7	1.2	2.9	86	21
18	4.5	3.7	3.8	3.3	2.5	3.6	8.1	4.2	1.0	2.3	99	26
19	4.5	3.9	3.7	3.5	2.4	3.8	9.0	3.9	1.0	2.4	76	22
20	4.3	4.3	3.7	3.5	2.5	4.1	8.7	3.9	.96	3.1	110	20
21	4.3	4.3	3.9	3.9	2.6	4.2	7.9	3.9	.96	2.3	154	17
22	4.3	4.6	4.1	3.9	2.6	3.9	7.9	3.4	.96	1.9	107	15
23	4.1	4.6	4.0	4.1	2.9	4.0	7.7	3.4	1.0	1.8	68	14
24	4.1	4.5	3.9	4.7	2.6	4.3	6.9	3.5	1.0	1.6	50	14
25	4.1	3.9	3.9	3.9	2.6	4.5	6.4	3.2	1.0	1.5	38	12
26	4.1	4.1	3.8	3.5	2.6	4.7	6.2	3.0	1.0	2.1	31	12
27	4.3	4.3	3.7	3.5	2.6	5.1	6.0	2.8	.90	73	27	11
28	4.6	4.3	3.6	3.3	2.8	5.5	6.1	2.6	2.5	13	29	10
29	4.5	4.5	3.7	3.3	---	4.9	6.3	2.8	24	3.9	29	9.7
30	5.0	4.5	3.9	3.3	---	5.0	5.8	3.5	85	3.0	24	9.3
31	4.8	---	3.9	3.3	---	5.1	---	4.6	---	2.7	21	---
TOTAL	129.8	124.1	121.7	114.8	78.9	118.4	195.1	154.9	157.88	254.5	1888.8	726.0
MEAN	4.19	4.14	3.93	3.70	2.82	3.82	6.50	5.00	5.26	8.21	60.9	24.2
MAX	5.0	4.6	4.3	4.7	3.3	5.5	9.2	10	85	73	341	51
MIN	3.7	3.5	3.6	3.3	2.4	2.8	4.4	2.6	.90	1.5	3.8	9.3
AC-FT	257	246	241	228	156	235	387	307	313	505	3750	1440

CAL YR 1980 TOTAL 4736.60 MEAN 12.9 MAX 90 MIN 2.5 AC-FT 9400
WTR YR 1981 TOTAL 4064.88 MEAN 11.1 MAX 341 MIN .90 AC-FT 8060

08382500 GALLINAS RIVER NEAR COLONIAS, NM

LOCATION.--Lat 35°10'55", long 104°53'59", Guadalupe County, Hydrologic Unit 13060001, 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 789.2 (1,269.8 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.

REMARKS.--Records fair. Diversions for irrigation of about 7,000 acres (28 km^2) 1959 determination, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--30 years, 16.2 ft^3/s (0.460 m^3/s), 11,740 acre-ft/yr (14.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,360 ft^3/s (265 m^3/s) June 16, 1963, gage height, 16.65 ft (5.075 m), from rating curve extended above 1,900 ft^3/s (54 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 (8.29 m); no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--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.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,700 ft^3/s (48 m^3/s) and maximum (*), from rating curve extended as explained above:

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
July 4	0700	3510	99.4	10.41	3.173	Aug. 11	0800	*7620	216	15.15	4.618
Aug. 9	0930	2800	79.3	9.40	2.865	Aug. 12	0830	7140	202	14.65	4.465
Aug. 11	0230	5470	155	12.80	3.901						

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.2	.00	1.4
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	108	.00	.68
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	26	37	.26
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	703	99	265
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	115	208	364
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	69	132	87
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	39	101	93
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	14	126	92
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.7	628	48
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.35	281	27
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2640	16
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1800	9.8
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	169	7.6
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	31	5.6
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	24	4.5
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	24	3.2
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.2	24	2.3
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	15	24	2.2
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.23	25	2.2
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	18	2.0
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	12	1.3
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	37	.20
23	.00	.00	.00	.00	.00	.00	.00	.00	28	.00	35	1.1
24	.00	.00	.00	.00	.00	.00	.00	.00	22	.00	13	.07
25	.00	.00	.00	.00	.00	.00	.00	.00	8.1	.00	7.3	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	3.5	.00	10	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	1.5	.00	48	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	2.8	.00	11	.00
29	.00	.00	.00	.00	---	.00	.00	66	19	.00	12	.00
30	.00	.00	.00	.00	---	.00	.00	15	5.0	.00	3.8	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	2.3	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	81.00	89.90	1099.68	6582.40	1036.41
MEAN	.000	.000	.000	.000	.000	.000	.000	2.61	3.00	35.5	212	34.5
MAX	.00	.00	.00	.00	.00	.00	.00	66	28	703	2640	364
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	161	178	2180	13060	2060

CAL YR 1980 TOTAL 560.17 MEAN 1.53 MAX 64 MIN .00 AC-FT 1110
WTR YR 1981 TOTAL 8889.39 MEAN 24.4 MAX 2640 MIN .00 AC-FT 17630

08382600 PECOS RIVER ABOVE CANON DEL UTA NEAR COLONIAS, NM

LOCATION.--Lat 35°05'29", long 104°48'00", in T.10 N., R.20 E., Guadalupe County, Hydrologic Unit 13060001, in Anton Chico Grant, on right bank 0.4 mi (0.6 km) upstream from Canon del Uta, 2.9 mi (4.7 km) southeast of Colonias, and at mile 775.8 (1,248.3 km).
DRAINAGE AREA.--2,330 mi^2 (6,030 km^2), approximately.
PERIOD OF RECORD.--January 1976 to current year.
GAGE.--Water-stage recorder. Altitude of gage is 4,800 ft (1,463 m), from U.S. Corps of Engineers plans.
REMARKS.--Records poor. Diversions and ground-water withdrawals for irrigation for about 11,800 acres (48 km^2), 1959 determination, above station; this includes the off channel Storrie Lake project on the Gallinas River above Las Vegas. Several observations of water temperature were made during the period.
AVERAGE DISCHARGE.--5 years, 63.9 ft^3/s (1.81 m^3/s), 46,300 acre ft/yr (57.1 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,990 ft^3/s (198 m^3/s) Aug. 12, 1981, gage height 10.22 ft (3.115 m), from rating curve extended above 1,200 ft^3/s (34 m^3/s) on basis of slope-area measurement of peak flow at station 5 miles (8 km) downstream, adjusted for flow from intervening area; no flow many days each year.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft^3/s (85 m^3/s) and maximum (*) from rating curve extended as explained above:

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Aug. 11	0500	6930	196	10.20	3.109	Aug. 17	2130	4970	141	9.52	2.902
Aug. 11	1030	5550	157	9.73	2.966	Sept. 4	0230	5360	152	9.66	2.944
Aug. 12	1100	*6990	198	10.22	3.115						

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.40	.00	.00	.00	.00	.00	.00	.00	.00	.00	.32	.05
2	.30	.00	.00	.00	.00	.00	.00	.00	.00	577	.00	.00
3	.20	.00	.00	.00	.00	.00	.00	.00	.00	186	.00	4.3
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	471	125	1140
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	103	708	415
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.1	352	191
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	101	154
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	128	62
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	793	23
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	862	12
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2960	4.7
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	185	2290	2.4
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	64	622	1.5
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.76	173	1.0
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	90	.11
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	53	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	403	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	538	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	468	.84
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	309	.14
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	517	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	576	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	250	.06
24	.00	.00	.00	.00	.00	.00	.00	.00	28	.00	113	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	61	.00	39	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	7.7	.00	19	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.04	165	22	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	310	23	.00
29	.00	.00	.00	.00	---	.00	.00	2.9	9.6	162	19	.00
30	.00	.00	.00	.00	---	.00	.00	5.3	5.1	97	20	.00
31	.00	---	.00	.00	---	.00	---	.00	---	32	7.4	---
TOTAL	.90	.00	.00	.00	.00	.00	.00	8.20	111.44	2358.86	12580.72	2012.10
MEAN	.029	.000	.000	.000	.000	.000	.000	.26	3.71	76.1	406	67.1
MAX	.40	.00	.00	.00	.00	.00	.00	5.3	61	577	2960	1140
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	1.8	.00	.00	.00	.00	.00	.00	16	221	4680	24950	3990

CAL YR 1980 TOTAL 18041.89 MEAN 49.3 MAX 520 MIN .00 AC-FT 35790
WTR YR 1981 TOTAL 17072.22 MEAN 46.8 MAX 2960 MIN .00 AC-FT 33860

08382650 PECOS RIVER ABOVE SANTA ROSA LAKE, NM

LOCATION.--Lat 35°03'35", long 104°45'41", in NE¼SE¼SE¼ sec. 25, T.10, R.20 E., Guadalupe County, Hydrologic Unit 13060001, at south boundary Preston Beck Grant, on left bank, 1.6 mi (2.6 km) upstream from River Ranch, 5.8 miles (9.3 km) southeast of Colonias, 9.1 miles (14.6 km) northwest of Santa Rosa, and at mile 770.8 (1,240.2 km).

DRAINAGE AREA.--2,340 mi^2 (6,060 km^2), approximately.

PERIOD OF RECORD.--February 1976 to current year. Prior to October 1979, published as "above Los Esteros Reservoir."

GAGE.--Water-stage recorder. Altitude of gage is 4,760 ft (1,451 m), from surveys by U.S. Corps of Engineers.

REMARKS.--Records fair. Diversions and ground-water withdrawals for irrigation of about 11,800 acres (48 km^2), 1959 determination, above station; this includes the off channel Storrie Lake project on the Gallinas River above Las Vegas. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--5 years, 77.1 ft^3/s (2.18 m^3/s), 55,860 acre-ft/yr (68.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,130 ft^3/s (259 m^3/s) Aug. 29, 1977, gage height, 14.08 (4.292 m) from rating curve extended above 1,500 ft^3/s (42 m^3/s), on basis of slope-area measurement of peak flow; minimum 3.0 ft^3/s (0.085 m^3/s) Jan. 30, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft^3/s (85 m^3/s) and maximum (*) from rating curve extended as explained above:

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
a Aug. 11 or 12		Unknown		Unknown		Sept. 4	0515	*7540	214	12.76	3.889
Aug. 17	2100	4510	128	10.07	3.069						

a from peak flows at station 08382600 5 mi (8 km) upstream; exact date and time unknown.

Minimum discharge, 4.8 ft^3/s (0.14 m^3/s) June 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	15	13	12	11	11	7.9	7.9	5.9	8.7	7.9	14
2	13	14	13	12	11	10	7.5	8.7	5.9	498	8.7	12
3	13	14	13	12	11	10	7.5	8.7	5.6	116	9.6	18
4	13	14	13	12	11	10	7.5	8.3	5.4	493	72	1590
5	13	14	13	12	11	10	7.5	8.3	5.9	101	475	290
6	13	14	13	12	11	10	7.1	8.3	5.6	17	310	271
7	13	14	13	12	11	10	7.5	8.3	5.6	11	88	354
8	13	14	13	11	11	10	7.1	8.3	5.4	10	70	286
9	13	14	13	11	11	10	7.1	8.3	5.4	11	1010	186
10	13	14	13	11	11	10	7.1	8.3	5.9	9.6	700	139
11	13	14	13	11	12	10	7.1	7.9	5.6	7.9	3000	101
12	13	14	12	11	12	10	7.1	7.9	5.9	123	2500	75
13	13	14	12	12	12	10	7.5	8.3	6.2	62	1000	51
14	14	13	11	12	12	10	7.5	8.7	6.2	7.9	306	33
15	14	13	11	11	12	10	7.5	8.7	6.5	7.9	253	20
16	14	13	11	11	12	9.6	7.5	8.7	7.1	7.9	172	16
17	14	13	11	11	11	9.2	7.9	8.7	6.5	7.5	509	13
18	14	13	12	11	11	9.2	7.9	7.5	6.8	7.1	580	13
19	14	13	12	11	11	9.2	7.9	7.5	6.8	6.2	453	23
20	14	13	12	11	11	9.2	7.5	7.5	6.8	6.5	381	22
21	14	13	12	11	11	8.7	7.5	6.8	6.8	5.9	542	13
22	14	13	12	11	11	9.2	7.9	6.8	6.8	5.9	296	12
23	14	13	12	12	10	8.7	7.9	6.8	7.5	6.2	337	13
24	14	13	12	12	10	9.2	7.9	6.5	30	6.2	165	15
25	14	13	12	12	10	9.2	7.9	6.8	63	6.2	101	13
26	14	13	12	11	10	8.3	7.9	6.2	17	6.5	62	12
27	14	13	12	11	10	7.9	8.3	6.2	7.5	56	55	12
28	16	13	12	11	11	7.9	8.3	6.2	6.5	172	56	12
29	16	13	12	11	---	8.3	8.3	6.5	11	130	44	12
30	16	13	12	11	---	8.3	7.9	16	14	44	50	12
31	15	---	11	11	---	7.5	---	6.2	---	24	30	---
TOTAL	428	404	378	353	309	290.6	229.0	245.8	291.1	1982.1	13643.2	3653
MEAN	13.8	13.5	12.2	11.4	11.0	9.37	7.63	7.93	9.70	63.9	440	122
MAX	16	15	13	12	12	11	8.3	16	63	498	3000	1590
MIN	13	13	11	11	10	7.5	7.1	6.2	5.4	5.9	7.9	12
AC-FT	849	801	750	700	613	576	454	488	577	3930	27060	7250

CAL YR 1980 TOTAL 22902.0 MEAN 62.6 MAX 501 MIN 11 AC-FT 45430
WTR YR 1981 TOTAL 22206.8 MEAN 60.8 MAX 3000 MIN 5.4 AC-FT 44050

08382650 PECOS RIVER ABOVE SANTA ROSA LAKE, NM -- Continued

WATER QUALITY RECORDS

PERIOD OF RECORD--Water years 1976, 1981.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
DEC											
11...	1400	13	975	8.2	12.0	13.0	--	--	--	--	--
FEB											
06...	1105	11	1200	--	7.0	7.5	--	650	530	--	220
APR											
08...	1630	7.2	1320	7.9	22.0	19.0	--	--	--	--	--
MAY											
26...	1145	6.2	1300	7.8	31.0	18.0	10	770	--	580	240
JUN											
25...	0845	7.6	1290	7.5	--	21.5	--	--	--	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
DEC										
11...	--	--	--	--	--	--	--	--	--	--
FEB										
06...	24	10	.2	1.2	--	550	4.4	.3	12	894
APR										
08...	--	--	--	--	--	--	--	--	--	--
MAY										
26...	42	35	.5	2.3	190	640	11	.2	8.8	1090
JUN										
25...	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
DEC										
11...	--	--	--	--	--	--	--	--	--	--
FEB										
06...	--	--	--	--	--	--	--	30	30	--
APR										
08...	--	--	--	--	--	--	--	--	--	--
MAY										
26...	.05	.04	.070	.60	.72	.020	.000	50	30	5.0
JUN										
25...	--	--	--	--	--	--	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
MAY										
26...	1145	1	1	50	0	<1	0	10	2	0

WATER QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
MAY									
26...	30	1	5	.1	.0	1	0	20	20

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
MAY									
26...	1145	<24	<.4	<10	.7	<9.7	.7	.08	2.2

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
FEB						
06...	1105	11	7.5	108	3.2	--
MAY						
26...	1145	6.2	18.0	10	.17	77

08382730 LOS ESTEROS CREEK ABOVE SANTA ROSA LAKE, NM

LOCATION.--Lat 35°05'42', long 104°39'49", Guadalupe County, Hydrologic Unit 13060001 in Preston-Beck Grant, on left bank, 3.7 mi (6.0 km) upstream from mouth, 4.9 mi (7.9 km) north-northeast of Santa Rosa Dam, and 10.4 mi (16.7 km) north-northeast of Santa Rosa. Mouth at Pecos River mile 763.0 (1,227.7 km).
DRAINAGE AREA.--65.6 mi^2 (169.9 km^2).
PERIOD OF RECORD.--July 1973 to current year. Prior to October 1979, published as "above Los Esteros Reservoir."
GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,767 ft (1,453 m), from topographic map.
REMARKS.--Records fair. No known diversions or groundwater withdrawals for irrigation above station. Several observations of water temperature were made during the period.
AVERAGE DISCHARGE.--8 years, 1.55 ft^3/s (0.044 m^3/s), 1,120 acre-ft/yr (1.38 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,900 ft^3/s (110 m^3/s) July 24, 1976, gage height 9.3 ft (2.83 m) from rating curve extended above 70 ft^3/s (2.0 m^3/s) on basis of velocity-area studies, and slope-area measurements at gage heights 6.5 ft (1.98 m) and 9.3 ft (2.83 m); no flow most of time.
EXTREMES OUTSIDE PERIOD OF RECORD.--A flood of unknown date reached a discharge of about 6,800 ft^3/s (193 m^3/s), gage height 11.6 ft (3.54 m), from floodmarks, from rating curve extended as explained above.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s (2.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Aug. 9	0800	*a175	4.96	3.49	1.064	Sept. 5	Unknown	138	3.91	b3.3	1.01

a From rating curve extended as explained above.
b From floodmarks.
No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.84	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.05	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.58	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	11
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	12	45
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	16	.02
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	10	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.1	49	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.22	12	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	16	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.4	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.17	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	3.3	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.19	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	4.34	5.03	117.64	56.02
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.14	.16	3.79	1.87
MAX	.00	.00	.00	.00	.00	.00	.00	.00	3.3	4.1	49	45
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	8.6	10.0	233	111

CAL YR 1980 TOTAL 158.34 MEAN .43 MAX 155 MIN .00 AC-FT 314
WTR YR 1981 TOTAL 183.03 MEAN .50 MAX 49 MIN .00 AC-FT 363

08382760 LOS ESTEROS CREEK TRIBUTARY ABOVE SANTA ROSA LAKE, NM

LOCATION.--Lat 35°05'35", long 104°40'20", Preston-Beck Grant, Guadalupe County, Hydrologic Unit 13060001, 0.5 (0.8 km) mile west-southwest of Los Esteros Creek gage, 0.8 mi (1.3 km) above confluence with Los Esteros Creek, 4.6 mi (7.4 km) north-northeast of Santa Rosa Dam, and 10.2 mi (16.4 km) north-northeast of Santa Rosa.
DRAINAGE AREA.--13.7 mi^2 (22.0 km^2).
PERIOD OF RECORD.--July 1973 to current year. Prior to October 1979, published as "above Los Esteros Reservoir."
GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,758 ft (1,450 m), from topographic map.
REMARKS.--Records poor. No known diversions or groundwater withdrawals for irrigation above station. Several observation of water temperature were made during the period.
AVERAGE DISCHARGE.--8 years, 0.42 ft^3/s (0.012 m^3/s), 304 acre-ft/yr (374,800 m^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,400 ft^3/s (210 m^3/s) Aug. 29, 1977, gage height, 7.80 ft (2.377 m) from rating curve extended above 0.5 ft^3/s (0.014 m^3/s) on basis of velocity-area studies, and slope-area measurement at gage height 7.80 ft (2.377 m); no flow most of the time.
EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 80 ft^3/s (2.3 m^3/s) and maximum (*) from rating curve extended as explained above:

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 29	1800	129	3.65	2.17	0.661	Sept. 5	1930	136	3.85	2.20	0.671
Aug. 8	Unknown	*410	11.6	3.05	0.930						

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.0	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	15
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	.78
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	51	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.9	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.9	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.0	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.90	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	2.2	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.11	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	5.1	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.07	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	7.50	3.00	62.41	15.78
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.25	.097	2.01	.53
MAX	.00	.00	.00	.00	.00	.00	.00	.00	5.1	3.0	51	15
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	15	6.0	124	31

CAL YR 1980 TOTAL 8.03 MEAN .022 MAX 8.0 MIN .00 AC-FT 16
WTR YR 1981 TOTAL 88.69 MEAN .24 MAX 51 MIN .00 AC-FT 176

08382810 SANTA ROSA LAKE NEAR SANTA ROSA, NM

LOCATION.--Lat 35°01'47", long 104°41'30", Guadalupe County, Hydrologic Unit 13060001, in Jose Perea Grant, near outlet gates of Santa Rosa Dam on Pecos River, approximately 7 mi (11.3 km) north of Santa Rosa, and at mile 757.2 (1,218.3 km).
DRAINAGE AREA.--2,430 mi^2 (6,290 km^2), approximately.
PERIOD OF RECORDS.--April 1980 to current year.
GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).
REMARKS.--Lake is formed by earth and rockfill dam on Pecos River. Storage began on Apr. 22, 1980. Capacity 447,100 acre-ft (551 hm^3) between elevations 4,630.0 ft (1,411.22 m), invert of outlet structure, and 4,797.0 ft (1,462.13 m), crest of spillway. No dead storage. Lake was created primarily for flood, irrigation, and sediment control.
COOPERATION.--Records furnished by Corps of Engineers.
EXTREMES (AT 0800) FOR PERIOD OF RECORD.--Maximum contents, 36,750 acre-ft (45.3 hm^3) Sept. 15, 1981, elevation 4,721.10 ft (1,301.787 m); no storage for many days July-Sept., 1980 and June-Aug. 1981.
EXTREMES (AT 0800) FOR CURRENT YEAR.--Maximum contents, 36,750 acre-ft (45.3 hm^3) Sept. 15, 1981, elevation 4,221.10 ft (1,301.787 m); minimum, no storage for many days June-Aug. 1981.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on capacity table by Corps of Engineers in 1980)

4,630	0	4,680	3,690
4,640	327	4,700	11,430
4,650	791	4,720	34,780
4,660	1,480	4,725	44,430

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	2640	17360	27090	0	0
2							---	2840	17850	27250	0	0
3							---	3010	18500	27120	0	0
4							---	3180	18870	26900	0	0
5							---	3370	19370	26690	0	0
6							---	3570	19750	26480	0	0
7							---	3950	20310	26280	0	0
8							---	4360	20900	23960	0	0
9							---	4830	21480	19750	0	0
10							---	5290	22050	15460	0	0
11							---	5810	22650	10350	0	1480
12							---	6390	23350	7940	0	1810
13							---	6930	24090	6140	0	1900
14							---	7340	24630	4800	1200	1990
15							---	7770	25170	3920	1680	2090
16							---	8230	25730	2660	0	2120
17							---	8630	26610	1630	0	2150
18							---	9050	26780	538	0	2190
19							---	9500	27220	0	0	2210
20							---	9800	27620	0	0	2230
21							---	10530	27720	0	0	2250
22							602	11320	27830	0	0	2260
23							957	11710	27940	0	0	2300
24							1230	12290	28120	0	0	2320
25							1550	12880	28230	0	0	2340
26							1800	13500	28120	0	0	2370
27							2050	14140	27350	0	0	2400
28							2300	15420	27330	0	0	2430
29							2440	15910	27310	0	0	2460
30							2530	16410	27290	0	0	2480
31							---	16880	---	0	0	---
MAX							---	16880	28230	27250	1680	2480
MIN							---	2640	17360	.00	.00	.00
(±)							---	+14350	+10410	+27250	0	+2480

(±) CHANGE IN CONTENTS, IN ACRE-FEET

08382810 SANTA ROSA LAKE NEAR SANTA ROSA, NM-- Continued

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2500	2750	2890	3030	3180	3250	3350	3430	0	0	0	28720
2	2530	2750	2890	3030	3180	3250	3350	3430	0	677	0	28690
3	2550	2750	2900	3030	3180	3250	3350	3440	0	0	0	28780
4	2570	2750	2910	3040	3190	3260	3360	3440	0	991	0	28900
5	2590	2760	2910	3040	3190	3260	3360	3440	0	0	926	30400
6	2620	2760	2920	3050	3200	3260	3360	3440	0	0	1200	31980
7	2640	2760	2920	3050	3200	3250	3360	3440	0	0	362	33620
8	2660	2770	2930	3060	3200	3250	3360	3440	0	0	0	35360
9	2680	2770	2930	3070	3200	3240	3370	3440	0	0	0	35740
10	2700	2770	2940	3080	3210	3250	3370	3440	0	0	1920	36200
11	2700	2770	2950	3080	3200	3260	3370	3440	0	0	9250	36440
12	2700	2770	2950	3090	3210	3270	3370	3440	0	0	13190	36570
13	2700	2780	2960	3090	3210	3280	3370	3440	0	474	18720	36660
14	2700	2780	2960	3100	3220	3290	3370	3440	0	225	19940	36720
15	2700	2780	2970	3110	3220	3300	3370	3440	0	0	20530	36750
16	2700	2780	2970	3110	3220	3310	3380	3430	0	0	20790	36730
17	2700	2790	2980	3120	3220	3310	3380	3430	0	0	24060	36730
18	2710	2790	2980	3130	3230	3310	3390	3430	0	0	22600	36660
19	2710	2790	2980	3130	3230	3310	3400	3430	0	0	23930	36680
20	2710	2800	2980	3140	3230	3320	3400	3430	0	0	24300	36700
21	2710	2800	2990	3140	3240	3320	3410	3430	0	0	25300	36720
22	2720	2820	2990	3140	3240	3320	3410	3430	0	0	26030	36700
23	2720	2830	2990	3150	3240	3330	3410	3430	0	0	26780	36680
24	2720	2840	2990	3150	3240	3330	3420	3430	0	0	27560	36660
25	2720	2840	2990	3160	3240	3340	3420	3430	0	0	27920	36660
26	2720	2850	3000	3160	3240	3340	3420	3430	0	0	28130	36640
27	2730	2860	3010	3160	3240	3350	3420	3430	0	0	28140	36610
28	2740	2870	3010	3170	3250	3350	3430	3430	0	252	28360	36590
29	2740	2870	3020	3170	---	3350	3430	3140	0	394	28510	36570
30	2740	2880	3020	3170	---	3350	3430	1920	0	120	28750	36550
31	2740	---	3030	3170	---	3350	---	510	---	0	28750	---
MAX	2740	2880	3030	3170	3250	3350	3430	3440	.00	991	28750	36750
MIN	2500	2750	2890	3030	3180	3240	3350	510	.00	.00	.00	28690
(±)	+260	+140	+150	+140	+80	+100	+80	-2920	-510	0	+28750	+7800

WTR YR 1981 MAX 36750 MIN 0 (±) +34070

(±) CHANGE IN CONTENTS, IN ACRE-FEET

08382830 PECOS RIVER BELOW SANTA ROSA DAM, NM

LOCATION (REVISED).--Lat 35°01'27", long 104°41'20", Guadalupe County, Hydrologic Unit 13060001, in Jose Perea Grant, on right bank, 0.2 mi (0.3 km) downstream from Santa Rosa Dam, 5.7 mi (9.2 km) north of Santa Rosa, and at mile 757.0 (1,218.0 km).
DRAINAGE AREA.--2,430 mi^2 (6,290 km^2), approximately.
PERIOD OF RECORD.--January 1980 to current year.
GAGE.--Water-stage recorder. Altitude 4,640 ft (1,414 m) from topographic map. Prior to Oct. 31, 1980, at datum about 1.2 ft. (0.37 m) higher.
REMARKS.--Records fair except those for periods Oct. 1-30 and May 28 to Aug. 17, which are poor. Flow completely regulated by Santa Rosa Lake (station 08382810) since April 1980. Diversions and groundwater withdrawals for irrigation of about 12,000 acres (49 km^2) 1959 determination, above station.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,090 ft^3/s (59.2 m^3/s) June 26, 1980, gage height about 5.77 ft (1.759 m), present datum; minimum daily, 0.80 ft^3/s (0.023 m^3/s) Aug. 14-17, 1981.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,650 ft^3/s (46.7 m^3/s) Aug. 10, gage height, 4.91 ft (1.497 m), includes apparent surface runoff between dam and gage; minimum daily, 0.80 ft^3/s (0.023 m^3/s) Aug. 14-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	14	11	11	9.1	10	4.8	4.6	10	25	28	1.7
2	3.0	14	11	11	9.1	11	4.8	4.6	11	486	38	1.9
3	3.0	14	11	11	9.1	11	4.8	4.6	9.1	310	45	2.3
4	3.0	14	11	9.6	9.1	11	4.8	4.6	7.8	430	70	2.9
5	3.0	14	11	8.7	9.1	11	4.8	4.6	7.3	398	563	3.2
6	3.0	15	11	8.7	8.7	14	4.8	4.6	7.3	49	710	3.9
7	3.0	15	11	8.7	8.7	16	4.8	4.8	6.5	24	323	2.4
8	3.0	15	11	8.7	9.1	16	4.8	4.8	6.5	18	141	2.4
9	3.0	16	11	8.2	8.7	8.7	4.8	4.8	6.9	19	537	2.3
10	4.5	16	11	8.2	8.7	5.7	4.8	5.1	6.1	20	879	2.2
11	6.0	16	11	8.2	8.2	6.1	4.8	5.1	6.0	18	1100	2.0
12	8.0	16	11	8.2	8.2	6.1	4.8	5.1	6.0	84	1140	2.2
13	10	16	11	8.2	8.2	6.1	4.8	5.1	6.0	158	493	2.2
14	12	15	11	8.2	8.2	6.1	4.8	5.1	5.5	47	.80	5.4
15	12	14	11	8.7	8.2	6.1	4.8	5.1	5.5	146	.80	2.9
16	13	14	11	9.1	8.7	6.1	4.6	5.1	5.5	96	.80	.97
17	13	13	11	9.6	9.1	6.5	4.6	4.8	5.5	21	.80	2.0
18	13	13	11	9.6	9.1	5.7	4.6	4.8	5.5	12	.83	2.3
19	13	12	11	9.6	8.7	4.8	4.6	4.8	5.5	8.0	.90	2.4
20	13	11	11	9.6	9.1	4.8	4.6	4.8	5.5	6.0	.97	2.4
21	12	11	10	9.6	8.7	4.8	4.6	4.8	5.5	5.5	1.0	2.4
22	12	11	11	9.1	8.7	4.8	4.6	4.8	5.5	5.5	1.0	2.4
23	12	11	11	9.1	9.1	4.8	4.6	4.8	6.1	5.1	1.0	2.6
24	13	11	11	9.1	9.1	4.8	4.6	4.8	22	5.7	1.0	2.6
25	14	11	11	9.1	9.1	4.8	4.6	4.8	53	4.8	1.2	2.6
26	14	11	11	9.1	9.1	4.8	4.6	4.8	51	6.9	1.8	2.6
27	14	11	11	9.1	9.1	4.8	4.6	4.8	15	20	1.8	2.6
28	14	11	11	9.1	9.6	4.8	4.6	194	7.8	139	1.7	2.4
29	14	11	11	9.1	---	4.8	4.6	358	69	136	1.7	2.3
30	14	11	11	9.1	---	4.8	4.6	718	144	16	1.7	2.3
31	14	---	11	9.1	---	4.8	---	283	---	49	1.7	---
TOTAL	291.5	397	340	283.4	247.6	225.6	141.0	1683.5	513.9	2768.5	6088.50	74.77
MEAN	9.40	13.2	11.0	9.14	8.84	7.28	4.70	54.3	17.1	89.3	196	2.49
MAX	14	16	11	11	9.6	16	4.8	718	144	486	1140	5.4
MIN	3.0	11	10	8.2	8.2	4.8	4.6	4.6	5.5	4.8	.80	.97
AC-FT	578	787	674	562	491	447	280	3340	1020	5490	12080	148

WTR YR 1981 TOTAL 13055.27 MEAN 35.8 MAX 1140 MIN .80 AC-FT 25900

08383000 PECOS RIVER AT SANTA ROSA, NM

LOCATION.--Lat 34°56'36", long 104°41'55", in NW¼SE¼ sec.3, T.8 N., R.21 E., Guadalupe County, Hydrologic Unit 13060001, on left bank, 0.4 mi (0.6 km) downstream from bridge on U.S. Highway I-40, 0.6 mi (1.0 km) upstream from bridge on U.S. Highway I-40 (Business) in Santa Rosa, 1.9 mi (3.1 km) upstream from El Rito Creek, and at mile 748.4 (1,204.2 km). Water-quality sampling site 0.7 mi (1.1 km) downstream.

DRAINAGE AREA.--2,650 mi^2 (6,860 km^2), approximately (contributing area).

WATER-DISCHARGE RECORDS

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.

REVISED RECORDS.--WSP 1512: 1913-15. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 4,537.56 ft (1,383.048 m) National Geodetic Vertical Datum of 1929. For history of changes prior to Sept. 13, 1967, see WSP 2123.

REMARKS.--Water-discharge records good. Flow regulated by Santa Rosa Lake (station 08382810) since April 1980. Diversions for irrigation of about 12,000 acres (49 km^2), 1959 determination, above station.

AVERAGE DISCHARGE.--63 years (1906, 1913-24, 1928-79), 135 ft^3/s (3.823 m^3/s), 97,810 acre-ft/yr (121 hm^3/yr), prior to completion of Santa Rosa Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,200 ft^3/s (1,560 m^3/s) June 2, 1937, gage height, 25.7 ft (7.83 m), site and datum then in use, from rating curve extended above 32,000 ft^3/s (910 m^3/s); minimum 0.28 ft^3/s (0.008 m^3/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 ft^3/s (1,300 m^3/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 ft^3/s (960 m^3/s), by comparison with 1904 flood.

Since completion of Santa Rosa Dam in 1980, maximum discharge 7,050 ft^3/s (200 m^3/s) Aug. 11, 1981, gage height, 6.56 ft (1.999 m); minimum daily, 3.3 ft^3/s (0.093 m^3/s) Feb. 28, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,050 ft^3/s (200 m^3/s) Aug. 11, gage height, 6.56 ft (1.999 m); minimum daily, 5.3 ft^3/s (0.15 m^3/s) Oct. 4-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	20	14	13	10	12	11	9.0	25	51	76	9.0
2	5.9	20	13	13	10	12	11	11	16	359	37	9.0
3	5.9	19	13	13	10	13	11	12	14	451	46	10
4	5.3	19	13	13	10	13	12	10	11	411	37	81
5	5.3	19	13	13	11	13	12	10	11	539	409	34
6	5.3	19	14	13	12	13	12	11	10	97	729	8.1
7	5.3	20	14	13	12	19	12	11	10	51	340	6.6
8	5.3	20	16	13	12	20	11	11	9.0	35	127	6.6
9	5.3	20	16	14	12	20	10	11	8.1	27	490	6.6
10	10	20	16	14	12	12	8.1	11	6.6	25	837	6.6
11	13	20	16	13	12	12	8.1	11	6.6	24	1380	6.6
12	14	20	14	13	12	12	8.1	11	6.6	35	1110	5.9
13	14	20	14	13	12	12	9.0	11	6.6	177	637	5.9
14	16	19	14	14	12	12	9.0	11	5.9	66	20	5.9
15	16	19	14	14	12	13	9.0	11	5.9	48	12	10
16	16	19	14	13	12	12	9.0	11	5.9	177	14	8.1
17	16	20	14	14	12	10	9.0	10	5.9	44	8.1	6.6
18	16	19	14	13	12	10	10	9.0	5.9	37	8.1	6.6
19	16	17	14	12	12	10	10	9.0	5.9	35	8.1	6.6
20	17	16	14	12	12	10	9.0	9.0	5.9	16	8.1	6.6
21	17	16	14	12	12	10	9.0	9.0	5.9	13	7.3	6.6
22	17	16	16	12	12	10	10	9.0	5.9	11	7.3	6.6
23	17	16	16	12	12	10	10	9.0	5.9	11	6.6	6.6
24	19	16	14	11	12	11	9.0	9.0	10	12	6.6	7.3
25	19	16	14	10	12	11	9.0	9.0	48	12	6.6	7.3
26	19	17	13	10	12	11	9.0	9.0	72	11	20	7.3
27	19	16	13	10	12	11	9.0	9.0	22	12	19	7.3
28	20	16	13	10	12	11	9.0	180	13	195	11	7.3
29	20	16	13	10	---	11	9.0	232	14	232	9.0	6.6
30	20	16	13	10	---	11	9.0	720	201	85	8.1	5.9
31	20	---	13	10	---	11	---	393	---	66	8.1	---
TOTAL	420.5	546	436	380	327	378	292.3	1798.0	579.5	3365	6443.0	315.1
MEAN	13.6	18.2	14.1	12.3	11.7	12.2	9.74	58.0	19.3	109	208	10.5
MAX	20	20	16	14	12	20	12	720	201	539	1380	81
MIN	5.3	16	13	10	10	10	8.1	9.0	5.9	11	6.6	5.9
AC-FT	834	1080	865	754	649	750	580	3570	1150	6670	12780	625

CAL YR 1980 TOTAL 22058.3 MEAN 60.3 MAX 1920 MIN 3.3 AC-FT 43750
WTR YR 1981 TOTAL 15280.4 MEAN 41.9 MAX 1380 MIN 5.3 AC-FT 30310

08383000 PECOS RIVER AT SANTA ROSA, NM -- Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected 0.6 mi (1.0 km) downstream from discharge station.

PERIOD OF RECORD.--Water years 1905-07, 1959 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1964 to current year.
WATER TEMPERATURES: October 1958 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1958 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,980 micromhos Sept. 13, 1981; minimum daily, 173 micromhos May 22, 1973.
WATER TEMPERATURES: Maximum, 38.0°C May 11, 1970; minimum, 0.0°C on several days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 31,400 mg/L Aug. 18, 1961; minimum daily, 2 mg/L Mar. 20, Apr. 1, 1981.
SEDIMENT LOADS: Maximum daily, 344,000 tons (312,000 tonnes) July 30, 1971; minimum daily, 0.05 ton (0.05 tonne) Mar. 20, June 19, Sept. 10, 30, 1981.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,980 micromhos Sept. 13; minimum daily, 248 micromhos Aug. 11.
WATER TEMPERATURES: Maximum, 31.0°C July 4,; minimum, 2.0°C Jan. 15, Feb 1-2
SEDIMENT CONCENTRATIONS: Maximum daily, 18,500 mg/L Aug. 11; minimum daily, 2 mg/L Mar. 20, Apr. 1.
SEDIMENT LOADS: Maximum daily, 92,500 tons (83,900 tonnes) Aug. 11; minimum daily, 0.05 ton (0.05 tonne) Mar. 20, June 19, Sept 10, 30.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95962)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT											
23...	1625	17	1640	8.3	11.0	13.5	--	--	--	--	--
NOV											
21...	1210	16	1590	8.0	10.0	10.0	870	740	--	280	42
DEC											
10...	1310	16	1480	8.1	11.5	9.5	--	--	--	--	--
19...	0840	14	1800	8.1	.0	4.0	--	--	--	--	--
FEB											
04...	1530	12	2000	8.0	4.5	6.5	970	860	--	310	47
MAR											
16...	1145	12	1910	7.8	--	14.0	--	--	--	--	--
APR											
09...	1220	12	2030	7.8	25.0	23.5	--	--	--	--	--
MAY											
26...	1300	9.0	2130	8.0	33.0	28.0	1400	--	1200	440	62
JUN											
24...	1800	11	2230	7.6	--	29.0	--	--	--	--	--
AUG											
18...	1340	7.9	1880	8.0	--	28.0	1200	--	1100	405	49

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
OCT											
23...	--	--	--	--	--	--	--	--	--	--	--
NOV											
21...	34	.5	2.4	130	750	27	.4	8.6	1220	90	<10
DEC											
10...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
FEB											
04...	39	.5	1.9	110	920	26	.4	11	1420	180	50
MAR											
16...	--	--	--	--	--	--	--	--	--	--	--
APR											
09...	--	--	--	--	--	--	--	--	--	--	--
MAY											
26...	54	.6	2.3	150	1200	28	.5	13	1890	90	40
JUN											
24...	--	--	--	--	--	--	--	--	--	--	--
AUG											
18...	39	.5	2.7	130	1100	52	.6	13	1740	80	20

08383000 PECOS RIVER AT SANTA ROSA, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)
OCT								
23...	1625	17	13.5	36	1.7	--	--	--
NOV								
21...	1210	16	10.0	10	.43	--	--	--
MAY								
30...	0730	720	17.0	849	1650	18	24	35
JUN								
25...	0720	48	22.0	1310	170	50	71	96
30...	0720	201	20.0	3550	1930	--	--	--
JUL								
02...	1420	359	26.0	23000	22300	45	59	87
05...	0930	712	20.0	8090	15600	53	70	91
05...	1600	318	29.0	14400	12400	48	69	93
06...	0720	97	23.0	4780	1250	63	79	98
13...	0715	177	23.0	8090	3870	49	69	94
29...	0740	232	22.0	21000	13200	49	60	90
AUG								
06...	0735	729	22.0	6430	12700	51	62	81
10...	0715	837	18.0	10900	24600	51	63	86
11...	0835	1380	19.0	4370	16300	45	57	78

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)
OCT							
23...	--	--	--	45	65	93	100
NOV							
21...	--	--	--	79	90	100	--
MAY							
30...	--	--	--	82	88	99	100
JUN							
25...	--	--	--	99	99	100	--
30...	--	--	--	99	100	--	--
JUL							
02...	100	--	--	--	--	--	--
05...	--	--	--	98	100	--	--
05...	--	--	--	99	100	--	--
06...	100	--	--	--	--	--	--
13...	100	--	--	--	--	--	--
29...	--	--	--	99	100	--	--
AUG							
06...	97	99	100	--	--	--	--
10...	97	99	100	--	--	--	--
11...	92	97	100	--	--	--	--

08383000 PECOS RIVER AT SANTA ROSA, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.¼C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2180	1740	1840	1980	2150	2020	2290	2480	1900	904	1170	2650
2	2180	1770	1880	1980	2210	2060	2270	2100	2000	1560	1400	2640
3	2190	1740	1850	1990	2200	2020	2300	2310	2110	695	1700	2720
4	2190	1740	1840	1980	2110	2060	2280	2390	2280	700	1880	2750
5	2180	1720	1850	2060	2100	2050	2290	2420	2260	479	996	2780
6	2190	1740	1830	2050	2120	2050	2260	2390	2290	750	475	1260
7	2200	1790	1840	2050	1990	1940	2290	2420	2350	1260	379	2490
8	2190	1780	1830	2070	2080	1920	2100	2460	2380	1630	709	2620
9	2220	1820	1850	2060	2080	1930	2250	2490	2450	1660	760	2720
10	1910	1790	1840	2050	2090	2180	2280	2510	2490	1840	334	2820
11	1810	1810	1860	2050	2250	2150	2310	2490	2510	1970	248	2900
12	1750	1760	1870	2040	2190	2180	2350	2480	2480	2060	314	2900
13	1770	1750	1870	2050	2100	2200	2330	2520	2520	743	337	2980
14	1740	1770	1900	1830	2090	2190	2320	2490	2550	832	475	2500
15	1730	1740	1890	2000	2110	2200	2300	2490	2580	1530	1280	2630
16	1730	1720	1900	2020	2120	2220	2340	2490	2550	650	1860	2150
17	1700	1720	1880	2030	2130	2250	2410	2550	2560	1370	1470	2490
18	1680	1740	1910	2030	2130	2280	2320	2150	2570	1670	2190	2610
19	1670	1800	1870	2020	2120	2290	2380	2350	2580	1990	2340	2490
20	1710	1840	1910	2030	2130	2280	2420	2370	2550	2090	2500	2460
21	1740	1850	2040	2040	2110	2290	2420	2400	2590	2180	2590	2490
22	1740	1680	2000	2050	2100	2290	2420	2430	2610	2270	2660	2360
23	1600	1810	1920	2040	2150	2030	2390	2450	2620	2330	2760	2440
24	1680	1820	1940	2050	2140	2170	2420	2430	2460	2350	2770	2400
25	1650	1800	1920	2090	2160	2210	2450	2450	1400	2460	2830	2460
26	1680	1940	1900	2110	2150	2230	2490	2470	1010	2390	1690	2510
27	1700	1840	1890	2110	1900	2260	2460	2480	1440	2330	1630	2510
28	1680	1850	1930	2100	2000	2260	2500	2470	1880	1580	2060	2510
29	1650	1870	1930	2100	---	2270	2480	2080	2080	554	2330	2520
30	1680	1840	1970	2110	---	2270	2480	1640	672	678	2620	2550
31	1730	---	1980	2110	---	2290	---	1620	---	914	2760	---
MEAN	1850	1790	1890	2040	2110	2160	2350	2360	2220	1500	1600	2540

WTR YR 1981 MEAN 2030 MAX 2980 MIN 248

TEMPERATURE, WATER (DEG.°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	10.0	5.5	6.0	2.0	11.0	8.0	15.0	15.0	20.0	20.0	19.0
2	13.0	11.0	3.0	3.5	2.0	7.0	10.0	16.0	15.0	19.0	18.0	17.0
3	12.0	8.0	4.0	5.0	6.5	10.0	9.5	19.0	17.0	20.0	19.0	17.0
4	14.0	9.0	5.0	6.0	2.5	9.0	6.0	13.0	19.0	31.0	20.0	18.0
5	21.0	7.5	7.0	5.0	4.0	5.0	13.0	13.0	16.0	20.0	20.0	22.0
6	14.0	9.0	7.0	6.0	4.0	10.0	8.5	22.0	17.0	23.0	22.0	18.0
7	13.0	10.0	9.0	3.0	4.5	14.0	10.5	13.0	27.0	20.0	21.0	18.0
8	13.0	10.0	7.5	6.0	6.0	7.0	13.0	12.0	21.0	19.0	20.0	16.0
9	13.0	15.0	7.0	3.0	7.0	5.0	10.5	10.5	19.0	20.0	19.0	16.0
10	12.0	10.0	3.5	3.0	4.5	7.0	12.0	17.0	23.0	19.0	18.0	17.0
11	10.0	15.0	3.0	3.0	4.0	8.5	13.0	11.0	19.0	20.0	19.0	17.0
12	16.0	10.0	2.5	3.5	3.0	8.0	10.0	16.0	18.0	29.0	18.0	17.0
13	12.0	9.0	7.0	3.5	2.5	8.0	13.0	13.0	18.0	23.0	18.0	25.0
14	13.0	9.0	6.0	2.5	3.0	8.0	11.0	12.0	19.0	20.0	17.0	15.0
15	15.0	7.0	4.0	2.0	10.0	10.0	10.0	15.0	14.0	19.0	19.0	15.0
16	12.0	3.0	5.0	4.0	5.0	7.0	13.0	12.0	16.0	19.0	19.0	16.0
17	7.0	5.0	6.5	4.0	5.0	9.5	13.0	19.0	14.0	19.0	18.0	15.0
18	10.0	3.0	8.0	6.0	8.0	6.0	15.0	12.0	17.0	20.0	18.5	14.5
19	8.0	4.0	4.0	5.0	20.0	6.0	13.0	11.0	17.0	25.0	18.0	14.5
20	9.0	9.0	3.5	4.0	7.0	8.5	14.0	12.0	18.0	19.0	18.0	19.0
21	9.0	6.0	4.0	2.5	6.0	10.0	15.0	16.0	23.0	19.0	18.0	14.0
22	9.0	4.0	4.5	2.5	13.0	5.5	13.0	12.0	19.0	18.5	17.5	15.0
23	9.0	4.0	6.0	4.5	5.0	7.0	12.0	13.0	18.0	18.0	22.0	17.0
24	7.0	5.5	6.0	5.0	5.0	8.0	13.0	20.0	30.0	19.0	17.0	15.0
25	8.0	3.0	8.0	6.5	5.5	8.0	13.0	14.0	22.0	26.5	17.0	15.0
26	8.0	4.5	6.0	4.0	9.0	9.0	22.0	15.0	21.0	28.0	18.0	18.0
27	7.0	6.0	5.0	5.0	9.0	10.0	13.0	17.0	19.0	19.0	18.0	14.0
28	7.0	8.0	10.0	5.0	7.0	7.0	15.5	15.0	18.0	20.0	17.0	14.0
29	5.0	6.0	8.0	5.0	---	10.0	14.0	16.0	19.0	22.0	18.0	15.0
30	6.0	7.0	5.0	3.0	---	9.0	14.0	17.0	20.0	20.0	21.0	14.5
31	7.0	---	4.5	4.0	---	8.0	---	18.0	---	22.0	18.5	---
MEAN	11.0	7.5	5.5	4.0	6.0	8.5	12.5	14.5	19.0	21.0	19.0	16.5

WTR YR 1981 MEAN 12.0 MAX 31.0 MIN 2.0

08383000 PECOS RIVER AT SANTA ROSA, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	59	.94	23	1.2	19	.72	5	.18	32	.86	18	.58
2	44	.70	24	1.4	16	.56	4	.14	15	.41	12	.39
3	50	.80	22	1.2	16	.56	5	.18	9	.24	16	.56
4	44	.63	23	1.2	12	.42	9	.32	6	.16	23	.81
5	48	.69	24	1.3	13	.46	6	.21	8	.24	16	.56
6	43	.62	23	1.2	13	.49	7	.25	6	.19	20	.70
7	47	.67	22	1.3	11	.42	6	.21	21	.68	14	.72
8	94	1.3	18	1.1	20	.86	6	.21	40	1.3	20	1.1
9	56	.80	17	1.0	13	.56	8	.30	32	1.0	15	.81
10	90	2.4	19	1.1	14	.60	7	.26	20	.65	14	.45
11	83	2.9	17	1.0	18	.78	32	1.1	20	.65	7	.23
12	62	2.3	15	.89	14	.53	10	.35	18	.58	7	.23
13	64	2.4	19	1.1	16	.60	8	.28	15	.49	6	.19
14	62	2.7	16	.86	107	4.0	14	.53	10	.32	8	.26
15	53	2.3	15	.81	18	.68	17	.64	14	.45	6	.21
16	55	2.4	21	1.1	13	.49	28	.98	40	1.3	6	.19
17	55	2.4	32	1.9	16	.60	14	.53	24	.78	5	.14
18	67	2.9	31	1.7	18	.68	13	.46	10	.32	8	.22
19	107	4.6	26	1.3	14	.53	13	.42	12	.39	3	.08
20	56	2.6	27	1.2	14	.53	14	.45	11	.36	2	.05
21	54	2.5	20	.86	10	.38	12	.39	9	.29	7	.19
22	35	1.6	18	.78	11	.48	21	.68	17	.55	7	.19
23	26	1.2	14	.60	11	.48	16	.52	8	.26	5	.14
24	22	1.1	14	.60	17	.64	12	.36	5	.16	6	.18
25	30	1.5	12	.52	12	.45	23	.62	5	.16	5	.15
26	19	.97	32	1.5	14	.49	7	.19	12	.39	6	.18
27	26	1.3	54	2.3	7	.25	9	.24	14	.45	6	.18
28	23	1.2	17	.73	4	.14	14	.38	19	.62	5	.15
29	22	1.2	15	.65	5	.18	8	.22	---	---	11	.33
30	16	.86	16	.69	4	.14	6	.16	---	---	7	.21
31	20	1.1	---	---	5	.18	12	.32	---	---	4	.12
TOTAL	---	51.58	---	33.09	---	18.88	---	12.08	---	14.25	---	10.50

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2	.06	7	.17	38	2.6	1580	218	2500	701	9	.22
2	4	.12	92	2.7	66	2.9	11500	18300	374	37	14	.34
3	7	.21	7	.23	61	2.3	4700	5720	330	41	7	.19
4	8	.26	11	.30	20	.59	15200	22000	1350	135	118	115
5	6	.19	11	.30	15	.45	12700	18500	13800	16500	115	11
6	3	.10	8	.24	11	.30	3510	919	5200	10200	131	2.9
7	5	.16	5	.15	14	.38	403	55	12300	7050	32	.57
8	10	.30	6	.18	13	.32	165	16	6100	2090	10	.18
9	9	.24	10	.30	16	.35	168	12	12100	20500	11	.20
10	9	.20	7	.21	14	.25	135	9.1	7510	17000	3	.05
11	8	.17	7	.21	13	.23	83	5.4	18500	92500	5	.09
12	9	.20	9	.27	9	.16	1180	448	8100	24300	4	.06
13	14	.34	5	.15	8	.14	7520	3590	2750	5260	4	.06
14	14	.34	4	.12	5	.08	4790	854	220	12	5	.08
15	14	.34	3	.09	12	.19	3500	454	90	2.9	11	.30
16	11	.27	6	.18	13	.21	3060	2560	141	5.3	11	.24
17	10	.24	17	.46	12	.19	261	31	35	.8	10	.18
18	10	.27	12	.29	5	.08	116	14	23	.5	7	.12
19	10	.27	10	.24	3	.05	62	5.9	14	.3	11	.20
20	8	.19	11	.27	5	.08	55	2.4	20	.4	12	.21
21	7	.17	13	.32	9	.14	70	2.5	16	.3	14	.25
22	9	.24	5	.12	4	.06	54	1.6	14	.3	6	.11
23	10	.27	8	.19	5	.08	141	4.2	15	.3	7	.12
24	6	.15	7	.17	11	.30	274	8.9	14	.3	9	.18
25	11	.27	9	.22	2910	377	26	.84	50	.9	10	.20
26	10	.24	5	.12	1980	385	13	.39	112	6.0	6	.12
27	5	.12	6	.15	250	15	900	29	46	2.4	10	.20
28	5	.12	339	453	110	3.9	14900	10200	18	.5	8	.16
29	4	.10	368	694	100	3.8	15700	9830	16	.4	6	.11
30	5	.12	764	1490	3250	1990	9490	2180	12	.3	3	.05
31	---	---	280	361	---	---	8250	1470	11	.2	---	---
TOTAL	---	6.27	---	3006.35	---	2787.13	---	97441.23	---	196348.1	---	133.69

TOTAL LOAD FOR YEAR: 299863.15 TONS.

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM
(Surveillance network station)

LOCATION.--Lat 34°43'48", long 104°31'28", in NE¼SE¼NW¼ sec.20, T.6 N., R.23 E., Guadalupe County, Hydrologic Unit 13060001, on left bank 9 mi (14.5 km) southeast of Puerto de Luna, 17.5 mi (28.2 km) upstream from Sumner Dam, and at mile 719.5 (1,157.7 km).
DRAINAGE AREA.--3,970 mi^2 (10,280 km^2), approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1938 to current year.
REVISED RECORDS.--WSP 1512: 1939.
GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,311.34 ft (1,314.096 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 15, 1954, at datum 1 ft (0.30 m) higher.
REMARKS.--Water-discharge records good. Flow regulated by Santa Rosa Lake (station 08382810) since April 1980. Diversions for irrigation of about 12,500 acres (51 km^2), 1959 determination, above station. Discharge represents inflow to Lake Sumner.
AVERAGE DISCHARGE.--41 years (1939-79), 209 ft^3/s (5.919 m^3/s), 151,400 acre-ft/yr (187 hm^3/yr), prior to completion of Santa Rosa Dam.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,600 ft^3/s (1,380 m^3/s) Sept. 1, 1942, gage height, 17.00 ft (5.182 m), from rating curve extended above 7,400 ft^3/s (210 m^3/s) on basis of flow at Santa Rosa; minimum, 11 ft^3/s (0.31 m^3/s) Jan. 31, 1951.

Since completion of Santa Rosa Dam in 1980, maximum discharge 4,580 ft^3/s (130 m^3/s) Aug. 6, 1981, gage height, 4.93 ft (1.503 m); minimum, 46 ft^3/s (1.30 m^3/s) June 14, 15, 1981.
EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1886 occurred June 2, 1937, when peak at Santa Rosa was 55,200 ft^3/s (1,560 m^3/s) and peak inflow to Lake Sumner was about 75,000 ft^3/s (2,120 m^3/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.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,580 ft^3/s (130 m^3/s) Aug. 6, gage height, 4.93 ft (1.503 m); minimum, 46 ft^3/s (1.30 m^3/s) June 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	82	84	83	90	85	76	66	202	311	166	116
2	70	86	83	94	90	82	79	71	94	149	169	90
3	70	87	84	83	90	87	78	70	80	552	214	85
4	72	88	85	83	90	88	78	66	74	509	213	270
5	70	87	83	82	91	86	80	68	69	523	367	178
6	68	88	85	80	89	85	81	70	66	271	1800	709
7	68	86	87	79	88	86	84	66	62	175	1020	175
8	70	84	88	79	89	87	84	65	60	235	300	82
9	67	83	88	78	91	89	82	62	60	252	222	76
10	66	84	88	80	90	88	83	58	59	94	884	76
11	73	84	88	81	90	87	81	62	57	84	1470	76
12	75	86	88	81	90	88	79	61	53	80	1100	74
13	73	87	88	80	88	86	79	60	51	80	1000	74
14	75	86	88	83	86	89	82	59	49	80	250	74
15	76	87	88	84	86	90	84	65	49	146	100	72
16	72	90	87	83	86	87	81	64	54	189	90	72
17	81	90	84	86	84	85	76	60	53	138	318	71
18	80	89	82	88	82	84	77	62	55	106	361	69
19	80	91	82	88	81	86	82	65	54	90	190	65
20	84	90	83	86	80	84	75	65	53	76	114	64
21	82	87	84	87	79	83	73	64	53	60	104	65
22	81	86	84	88	87	84	71	60	54	57	86	65
23	79	85	84	88	87	84	78	61	63	56	82	272
24	80	87	81	86	86	85	76	63	96	56	81	299
25	83	90	82	85	86	87	72	67	94	57	76	80
26	83	88	80	87	86	87	70	62	116	60	81	77
27	84	86	80	87	84	79	70	59	114	71	104	74
28	86	86	83	89	82	77	70	58	76	62	835	72
29	83	85	80	91	---	78	69	219	104	271	182	71
30	82	85	79	94	---	78	68	613	354	287	132	72
31	82	---	81	94	---	77	---	576	---	117	126	---
TOTAL	2366	2600	2611	2627	2428	2628	2318	3187	2478	5294	12237	3715
MEAN	76.3	86.7	84.2	84.7	86.7	84.8	77.3	103	82.6	171	395	124
MAX	86	91	88	94	91	90	84	613	354	552	1800	709
MIN	66	82	79	78	79	77	68	58	49	56	76	64
AC-FT	4690	5160	5180	5210	4820	5210	4600	6320	4920	10500	24270	7370

CAL YR 1980 TOTAL 50105 MEAN 137 MAX 2240 MIN 51 AC-FT 99380
WTR YR 1981 TOTAL 44489 MEAN 122 MAX 1800 MIN 49 AC-FT 88240

PERIOD OF RECORD.--Water years 1937-66, 1972 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
NOV												
21...	1010	87	2750	7.8	3.5	5.0	--	14	1600	1500	--	530
DEC												
12...	0920	89	2400	8.2	4.0	4.0	--	--	--	--	--	--
JAN												
07...	1300	79	2780	7.9	17.0	9.0	10.3	14	1700	1500	--	550
FEB												
04...	1200	95	2680	7.7	4.0	3.0	--	--	--	--	--	--
MAR												
25...	1230	87	2880	8.2	20.0	17.0	9.2	29	1600	--	--	530
APR												
11...	1100	81	2870	7.5	25.5	18.5	--	--	--	--	--	--
MAY												
26...	1520	62	2940	7.8	33.5	27.5	7.2	15	1700	--	1600	560
JUN												
25...	1305	110	2760	7.3	--	29.5	--	--	--	--	--	--
JUL												
21...	1630	60	2610	8.2	40.0	31.0	6.5	35	1500	--	1400	470
AUG												
20...	1230	101	2680	7.8	--	25.0	--	--	--	--	--	--
SEP												
22...	1230	65	2840	8.1	29.0	22.0	--	60	1800	--	1700	590

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)
NOV											
21...	65	94	1.0	3.0	110	1400	140	.6	14	2310	--
DEC											
12...	--	--	--	--	--	--	--	--	--	--	--
JAN											
07...	69	99	1.1	2.1	130	1500	130	.8	13	2440	--
FEB											
04...	--	--	--	--	--	--	--	--	--	--	--
MAR											
25...	70	98	1.1	2.0	99	1400	140	.7	13	2310	.00
APR											
11...	--	--	--	--	--	--	--	--	--	--	--
MAY											
26...	72	110	1.2	2.3	91	1500	150	.5	14	2460	--
JUN											
25...	--	--	--	--	--	--	--	--	--	--	--
JUL											
21...	67	110	1.3	2.9	70	1400	140	.5	16	2250	--
AUG											
20...	--	--	--	--	--	--	--	--	--	--	--
SEP											
22...	71	95	1.0	2.8	94	1500	180	.8	11	2510	--

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV											
21...	--	.00	.00	.070	.19	.26	.040	.000	120	30	3.7
DEC											
12...	--	--	--	--	--	--	--	--	--	--	--
JAN											
07...	--	.08	.11	.150	.36	.59	.000	.010	110	80	2.8
FEB											
04...	--	--	--	--	--	--	--	--	--	--	--
MAR											
25...	.010	.01	.01	.150	.18	.34	.020	.010	70	80	3.4
APR											
11...	--	--	--	--	--	--	--	--	--	--	--
MAY											
26...	--	.01	.02	.070	.36	.44	.040	.040	110	60	3.2
JUN											
25...	--	--	--	--	--	--	--	--	--	--	--
JUL											
21...	--	.15	.11	.580	.33	1.1	.160	<.010	90	40	44
AUG											
20...	--	--	--	--	--	--	--	--	--	--	--
SEP											
22...	--	.31	.18	.660	.64	1.6	.160	.020	140	50	4.0

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)
NOV										
21...	1010	1	1	120	0	0	0	0	5	0
MAY										
26...	1520	2	2	110	0	0	10	10	3	2

DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV									
21...	30	14	0	.0	.0	1	0	20	10
MAY									
26...	60	1	2	.2	.1	0	0	20	10

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITROGEN,TOT IN BOTTOM MATERIAL (MG/KG AS N) (00603)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)
MAY								
26...	1520	3.1	.8	40	200	0	0	0

DATE	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
MAY							
26...	10	3	420	5	240	.01	2

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
MAY									
26...	1520	<50	1.5	<21	1.1	<20	1.0	.08	2.0

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)
MAY			
26...	1520	.00	.00

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV			
21...	1010	6	9
JAN			
07...	1300	1	3
MAR			
25...	1230	2	66
MAY			
26...	1520	13	25
JUL			
21...	1630	30	20
SEP			
22...	1230	120	120

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
21...	1010	87	5.0	98	23	32
JAN						
07...	1300	79	9.0	99	21	31
MAR						
25...	1230	87	17.0	23	5.4	70
MAY						
26...	1520	62	27.5	55	9.2	65
JUL						
21...	1630	60	31.0	170	28	76
SEP						
22...	1230	65	22.0	348	61	94

08384000 LAKE SUMNER NEAR FORT SUMNER, NM

LOCATION.--Lat 34°36'30", long 104°23'04", in SE¼SW¼ sec.34, T.5 N., R.24 E., DeBaca County, Hydrologic Unit 13060001, 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 702.0 (1,129.5 km).

DRAINAGE AREA.--4,390 mi^2 (11,370 km^2), approximately (contributing area).

PERIOD OF RECORD.--December 1938 to September 1965 (monthend elevations and contents), October 1965 to current year. Monthend elevations September 1937 to November 1938 published in reports of Pecos River Commission. Elevations and contents May 27, 1937 to June 10, 1937 in WSP 842. Prior to October 1974, published as "Alamogordo Reservoir".

REVISED RECORDS.--WSP 1732: 1939-54 (contents). WSP 1923: 1939-53(M) (m).

GAGE.--Nonrecording gage. Datum of gage is at 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.

REMARKS.--Reservoir is formed by earthfill dam, completed and storage began in August 1937. Capacity, 101,600 acre-ft (125 hm^3) between elevation 4,200.0 ft (1,280.160 m) sill of outlet gate and elevation 4,275.0 ft (1,303.020 m), normal operating level. No dead storage. Reservoir is used to store water for irrigation.

COOPERATION.--Elevation record and capacity table (dated November 1973) furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 138,300 acre-ft (171 hm^3) 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).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 33,900 acre-ft (41.8 hm^3) Sept. 25-27, gage height, 4,254.00 ft (1,296.619 m); minimum, 2,160 acre-ft (2.66 hm^3) June 22-23, gage height, 4,224.20 ft (1,287.536 m).

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12390	12390	17820	23080	28200	32620	31780	30550	20300	3640	10620	30960
2	12290	12490	18080	23240	28390	32830	31780	30550	18620	4140	10790	30760
3	12290	12690	18360	23410	28390	32830	31570	30550	16580	4460	10880	30760
4	12290	12900	18490	23570	28580	32830	31570	30550	14710	4970	11250	30960
5	12200	13100	18620	23740	28780	33040	31370	30550	12900	5960	11250	31370
6	12200	13310	18760	23900	28970	32830	31370	30550	10880	7650	12900	33690
7	12290	13520	18890	24070	29160	32830	31370	30350	8680	8110	16340	32620
8	12290	13620	19030	24240	29360	32830	31160	30350	6430	8240	17820	33260
9	12290	13730	19170	24410	29360	32830	31160	30150	4800	8680	17820	33260
10	12200	13940	19450	24580	29560	32830	31160	30150	3050	9050	18360	33470
11	12290	14050	19590	24760	29560	32830	31160	30150	2570	9050	20160	33470
12	12290	14270	19730	24930	29750	32830	31160	29950	2610	9130	23240	33470
13	12200	14380	19870	24930	29950	32830	31160	29950	2610	9130	25450	33470
14	12100	14600	20010	25100	30150	32830	31160	29750	2610	9210	27260	33470
15	12000	14710	20300	25280	30350	32830	30960	29750	2610	9360	27260	33470
16	12000	14940	20450	25450	30550	32830	30960	29560	2530	10020	27630	33260
17	12000	15170	20600	25630	30550	32830	30960	29560	2390	10440	27820	33260
18	11900	15400	20740	25810	30760	32830	30960	29560	2260	10440	28390	33040
19	12000	15630	20890	25980	30960	32830	30960	29560	2260	10440	28780	33040
20	12100	15740	21040	26160	31160	32830	30960	29360	2220	10360	28970	32830
21	12100	15860	21190	26340	31370	32830	30960	29360	2190	10440	28970	32830
22	12000	15980	21350	26520	31370	32410	30960	29360	2160	10360	28970	32620
23	12000	16220	21500	26710	31570	32410	30760	29360	2160	10180	28970	32620
24	12000	16340	21810	26890	31570	32410	30760	29360	2190	10020	28780	33690
25	12000	16460	21960	27080	31780	32200	30760	29360	2220	9850	28780	33900
26	12000	16580	22120	27260	31990	32200	30760	29360	2260	9680	28580	33900
27	12000	16820	22280	27450	32200	32200	30760	27450	2360	9680	28580	33900
28	12100	17190	22440	27630	32200	31990	30550	25450	2430	9770	29950	33690
29	12200	17440	22600	27820	---	31990	30550	23240	2430	9600	31160	33470
30	12200	17700	22760	28200	---	31990	30550	21650	2680	10270	31160	33260
31	12290	---	22920	28200	---	31990	---	21350	---	10530	30960	---
MAX	12390	17700	22920	28200	32200	33040	31780	30550	20300	10530	31160	33900
MIN	11900	12390	17820	23080	28200	31990	30550	21350	2160	3640	10620	30760
(±)	+90	+5410	+5220	+5280	+4000	-210	-1440	-9200	-18670	+7850	+20430	+2300

CAL YR 1980 MAX 91160 MIN 1680 (±) -60570
WTR YR 1981 MAX 33900 MIN 2160 (±) +21060

(±) CHANGE IN CONTENTS IN ACRE-FEET.

08384000 LAKE SUMNER NEAR FORT SUMNER, NM -- Continued

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4240.00	4240.00	4244.80	4248.30	4251.20	4253.40	4253.00	4252.40	4246.50	4227.90	4238.10	4252.60
2	4239.90	4240.10	4245.00	4248.40	4251.30	4253.50	4253.00	4252.40	4245.30	4228.90	4238.30	4252.50
3	4239.90	4240.30	4245.10	4248.50	4251.30	4253.50	4252.90	4252.40	4243.80	4229.50	4238.40	4252.50
4	4239.90	4240.50	4245.20	4248.60	4251.40	4253.50	4252.90	4252.40	4242.20	4230.40	4238.80	4252.60
5	4239.80	4240.70	4245.30	4248.70	4251.50	4253.60	4252.80	4252.40	4240.50	4232.00	4238.80	4252.80
6	4239.80	4240.90	4245.40	4248.80	4251.60	4253.50	4252.80	4252.40	4238.40	4234.40	4240.50	4253.90
7	4239.90	4241.10	4245.50	4248.90	4251.70	4253.50	4252.80	4252.30	4235.70	4235.00	4243.60	4253.40
8	4239.90	4241.20	4245.60	4249.00	4251.80	4253.50	4252.70	4252.30	4232.70	4235.10	4244.80	4253.70
9	4239.90	4241.30	4245.70	4249.10	4251.80	4253.50	4252.70	4252.20	4230.10	4235.70	4244.80	4253.70
10	4239.80	4241.50	4245.90	4249.20	4251.90	4253.50	4252.70	4252.20	4226.60	4236.20	4245.10	4253.80
11	4239.90	4241.60	4246.00	4249.30	4251.90	4253.50	4252.70	4252.20	4225.40	4236.20	4246.40	4253.80
12	4239.90	4241.80	4246.10	4249.40	4252.00	4253.50	4252.70	4252.10	4225.50	4236.30	4248.40	4253.80
13	4239.80	4241.90	4246.20	4249.40	4252.10	4253.50	4252.70	4252.10	4225.50	4236.30	4249.70	4253.80
14	4239.70	4242.10	4246.30	4249.50	4252.20	4253.50	4252.70	4252.00	4225.50	4236.40	4250.70	4253.80
15	4239.60	4242.20	4246.50	4249.60	4252.30	4253.50	4252.60	4252.00	4225.50	4236.60	4250.70	4253.80
16	4239.60	4242.40	4246.60	4249.70	4252.40	4253.50	4252.60	4251.90	4225.30	4237.40	4250.90	4253.70
17	4239.60	4242.60	4246.70	4249.80	4252.40	4253.50	4252.60	4251.90	4224.90	4237.90	4251.00	4253.70
18	4239.50	4242.80	4246.80	4249.90	4252.50	4253.50	4252.60	4251.90	4224.50	4237.90	4251.30	4253.60
19	4239.60	4243.00	4246.90	4250.00	4252.60	4253.50	4252.60	4251.90	4224.50	4237.90	4251.50	4253.60
20	4239.70	4243.10	4247.00	4250.10	4252.70	4253.50	4252.60	4251.80	4224.40	4237.80	4251.60	4253.50
21	4239.70	4243.20	4247.10	4250.20	4252.80	4253.50	4252.60	4251.80	4224.30	4237.90	4251.60	4253.50
22	4239.60	4243.30	4247.20	4250.30	4252.80	4253.30	4252.60	4251.80	4224.20	4237.80	4251.60	4253.40
23	4239.60	4243.50	4247.30	4250.40	4252.90	4253.30	4252.50	4251.80	4224.20	4237.60	4251.60	4253.40
24	4239.60	4243.60	4247.50	4250.50	4252.90	4253.30	4252.50	4251.80	4224.30	4237.40	4251.50	4253.90
25	4239.60	4243.70	4247.60	4250.60	4253.00	4253.20	4252.50	4251.80	4224.40	4237.20	4251.50	4254.00
26	4239.60	4243.80	4247.70	4250.70	4253.10	4253.20	4252.50	4251.80	4224.50	4237.00	4251.40	4254.00
27	4239.60	4244.00	4247.80	4250.80	4253.20	4253.20	4252.50	4250.80	4224.80	4237.00	4251.40	4254.00
28	4239.70	4244.30	4247.90	4250.90	4253.20	4253.10	4252.40	4249.70	4225.00	4237.10	4252.10	4253.90
29	4239.80	4244.50	4248.00	4251.00	---	4253.10	4252.40	4248.40	4225.00	4236.90	4252.70	4253.80
30	4239.80	4244.70	4248.10	4251.20	---	4253.10	4252.40	4247.40	4225.70	4237.70	4252.70	4253.70
31	4239.90	---	4248.20	4251.20	---	4253.10	---	4247.20	---	4238.00	4252.60	---
MEAN	4239.75	4242.32	4246.55	4249.74	4252.23	4253.40	4252.65	4251.53	4229.31	4235.72	4247.87	4253.54
MAX	4240.00	4244.70	4248.20	4251.20	4253.20	4253.60	4253.00	4252.40	4246.50	4238.00	4252.70	4254.00
MIN	4239.50	4240.00	4244.80	4248.30	4251.20	4253.10	4252.40	4247.20	4224.20	4227.90	4238.10	4252.50

CAL YR 1980 MEAN 4253.75 MAX 4272.60 MIN 4222.70
WTR YR 1981 MEAN 4246.19 MAX 4254.00 MIN 4224.20

08384500 PECOS RIVER BELOW SUMNER DAM, NM

LOCATION.--Lat 34°36'15", long 104°23'14", in lot 1, sec.2, T.4 N., R.24 E., DeBaca County, Hydrologic Unit 13060003, on left bank 1,200 ft (366 m) downstream from Sumner Dam, 2.9 mi (4.7 km) upstream from Salado Creek, 4.6 mi (7.4 km) northeast of Guadalupe, 12.2 mi (19.6 km) northwest of Fort Sumner, and at mile 701.7 (1,129.0 km).

WATER-DISCHARGE RECORDS

DRAINAGE AREA.--4,390 mi^2 (11,370 km^2), 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. October 1944 to September 1974, published as "below Alamogordo Dam." Prior to October 1944, published as "near Guadalupe."
REVISED RECORDS.--WSP 1512: 1932. WSP 1632: 1942. WSP 1712: 1944.
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) 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.
REMARKS.--Water-discharge records good. Flow completely regulated by Santa Rosa Lake (station 08382810) beginning April 1980 and Lake Sumner (station 08484000) 0.3 mi (0.5 km) upstream beginning August 1937. Diversion for irrigation of about 12,500 acres (51 km^2), 1959 determination, above station.
AVERAGE DISCHARGE.--23 years (1913-25, 1927-36), 236 ft^3/s (6.684 m^3/s), 171,000 acre-ft/yr (211 hm^3/yr), prior to completion of Sumner Dam; 45 years (1937-81), 202 ft^3/s (5.721 m^3/s) 146,300 acre-ft/yr (180 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,800 ft^3/s (1,210 m^3/s) Sept. 1, 1942, by computation of flow over spillway and through outlet gates of Sumner 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, about 75,000 ft^3/s (2,120 m^3/s) at site 1.5 mi (2.4 km) upstream, from peak inflow to Lake Sumner.
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,150 ft^3/s (32.6 m^3/s) May 30-June 3, maximum gage height, 3.31 ft (1.009 m); May 26-June 1; minimum daily, 0.05 ft^3/s (0.001 m^3/s) Nov. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	5.5	.13	.51	.52	.64	88	82	1150	66	90	102
2	77	1.8	.13	.51	.51	.64	88	82	1150	67	89	102
3	78	2.0	.13	.51	.51	.64	86	82	1150	67	91	101
4	80	2.3	.13	.51	.51	51	86	75	1140	67	91	101
5	80	1.6	.13	.51	.51	97	86	71	1140	67	91	90
6	80	.71	.13	.51	.54	97	84	71	1130	67	93	38
7	80	.31	.28	.49	.52	97	82	71	1130	64	92	38
8	80	.29	.28	.51	.52	97	82	70	875	63	92	37
9	78	.25	.31	.51	.52	90	82	71	790	63	90	17
10	78	.26	.26	.51	.51	86	82	71	480	63	43	12
11	80	.32	.26	.51	1.1	86	84	70	65	63	1.4	42
12	80	.28	.32	.51	.85	86	82	69	65	63	1.3	42
13	80	.13	.38	.51	.87	86	80	72	63	87	1.4	42
14	80	.13	.38	.51	.87	86	79	72	62	100	1.3	60
15	78	.13	.38	.51	.87	88	78	71	78	101	1.5	81
16	78	.28	.38	.51	.87	86	78	72	87	101	25	95
17	80	.13	.40	.51	.87	88	78	72	86	100	77	103
18	80	.13	.43	.51	.87	88	78	65	83	100	1.6	102
19	80	.28	.47	.51	.87	88	78	63	83	101	1.4	101
20	77	.28	.51	.51	.98	88	82	63	85	100	33	101
21	76	.28	.51	.49	1.0	88	83	63	85	100	81	104
22	76	.45	.51	.49	1.1	88	83	64	84	99	84	106
23	76	.45	.47	.51	1.1	88	82	63	85	99	89	106
24	78	.13	.51	.51	1.0	88	82	64	86	100	98	105
25	77	1.7	.47	.51	1.0	86	83	65	86	100	102	104
26	76	.05	.51	.51	1.3	86	84	759	87	100	102	105
27	76	.13	.51	.52	1.3	88	84	1130	87	94	103	105
28	76	.13	.51	.51	1.0	88	82	1130	88	91	104	105
29	76	.13	.51	.51	---	88	82	1130	71	91	102	105
30	75	.28	.54	.53	---	88	82	1150	65	91	102	105
31	75	---	.50	.52	---	88	---	1150	---	91	103	---
TOTAL	2388	20.84	11.37	15.79	22.99	2450.92	2470	8203	11716	2626	2076.9	2457
MEAN	77.0	.69	.37	.51	.82	79.1	82.3	265	391	84.7	67.0	81.9
MAX	80	5.5	.54	.53	1.3	97	88	1150	1150	101	104	106
MIN	47	.05	.13	.49	.51	.64	78	63	62	63	1.3	12
AC-FT	4740	41	23	31	46	4860	4900	16270	23240	5210	4120	4870

CAL YR 1980 TOTAL 74707.09 MEAN 204 MAX 1090 MIN .05 AC-FT 148200
WTR YR 1981 TOTAL 34458.81 MEAN 94.4 MAX 1150 MIN .05 AC-FT 68350

PERIOD OF RECORD.--Water years 1937-66, 1972 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT										
24...	1250	78	2680	8.4	17.0	13.0	1.3	10.4	1400	1300
JAN										
07...	1500	.49	2610	8.2	18.0	9.0	2.1	11.2	1400	1300
MAR										
25...	1430	86	2740	8.2	19.0	10.0	3.1	10.4	1600	--
MAY										
26...	1635	1090	3110	8.0	33.5	17.0	3.8	9.5	1700	--
JUL										
21...	1400	100	1840	8.0	42.0	25.0	10	7.6	840	--
SEP										
22...	1430	106	1560	8.1	21.0	20.0	38	--	860	--

DATE	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT										
24...	--	450	57	78	.9	3.3	100	--	1200	110
JAN										
07...	--	450	68	90	1.0	2.4	--	120	1200	110
MAR										
25...	1500	530	70	92	1.0	2.5	--	95	1500	140
MAY										
26...	1500	540	73	110	1.2	2.8	--	140	1500	150
JUL										
21...	760	280	35	54	.8	3.5	--	82	710	66
SEP										
22...	760	290	32	46	.7	3.7	--	99	740	58

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
OCT										
24...	.5	12	2090	1970	--	--	.15	.17	.090	.130
JAN										
07...	.7	13	2150	2010	--	--	.14	.16	.110	.180
MAR										
25...	.6	12	2500	2400	.04	.010	.06	.05	.100	.080
MAY										
26...	.5	12	2770	2470	--	--	.01	.02	.090	.110
JUL										
21...	.5	12	1310	1210	--	--	.28	.22	.420	.310
SEP										
22...	.4	12	1370	1240	--	--	.21	.22	.310	.220

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT									
24...	.37	.61	.130	--	30	50	--	4.2	.5
JAN									
07...	.60	.85	.010	--	--	--	4.6	--	--
MAR									
25...	.40	.56	.030	.010	50	30	--	2.2	.4
MAY									
26...	.39	.49	.020	--	50	50	--	4.9	--
JUL									
21...	.78	1.5	.230	--	--	--	10	--	--
SEP									
22...	.79	1.3	.050	--	120	350	--	4.9	.5

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)
OCT										
24...	1250	2	1	100	400	0	0	20	10	0
MAR										
25...	1430	1	1	100	100	0	0	20	10	0
MAY										
26...	1635	2	1	300	100	0	0	10	10	0
SEP										
22...	1430	0	2	200	190	0	<1	20	0	1

DATE	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)
OCT										
24...	0	3	1	600	30	0	0	120	50	.1
MAR										
25...	0	2	2	100	50	0	2	40	30	.2
MAY										
26...	2	2	0	190	50	2	3	70	50	.2
SEP										
22...	<3	5	1	1200	120	5	0	490	350	.1

DATE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT									
24...	.1	4	0	0	0	1	0	20	10
MAR									
25...	.1	2	2	1	0	0	0	50	10
MAY									
26...	.0	1	1	0	0	0	0	20	10
SEP									
22...	.0	4	3	0	1	0	0	20	15

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
24...	1250	1	1
JAN			
07...	1500	2	0
MAR			
25...	1430	1	5
MAY			
26...	1635	0	9
JUL			
21...	1400	10	0
SEP			
22...	1430	7	0

08384500 PECOS RIVER BELOW SUMNER DAM, NM -- Continued

WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
IDENTIFICATION OF PHYTOPLANKTON

DATE	OCT 24,80		MAR 25,81		MAY 26,81		JUL 21,81		SEP 22,81	
TIME	1250		1430		1635		1400		1430	
TOTAL CELLS/ML	2600		1800		3000		2400		1500	
DIVERSITY: DIVISION	1.9		1.5		0.9		1.0		0.5	
.CLASS	1.9		1.5		0.9		1.0		0.5	
..ORDER	2.5		1.7		0.9		1.1		0.5	
...FAMILY	2.8		1.7		1.2		2.5		0.7	
....GENUS	2.9		1.7		1.3		3.1		1.7	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)										
.BACILLARIOPHYCEAE										
..BACILLARIALES										
...NITZSCHIACEAE										
....NITZSCHIA	*	0	13	1	--	-	29	1	58	4
..EUPODISCALES										
...COSCINODISCACEAE										
....CYCLOTELLA	490#	19	77	4	*	0	360	15	--	-
..NAVICULALES										
...ENTOMONEIDACEAE										
....ENTOMONEIS	*	0	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....NAVICULA	--	-	77	4	--	-	29	1	--	-
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHLOROCOCCACEAE										
....SCHROEDERIA	--	-	--	-	*	0	--	-	--	-
...DICTYOSPHAERIACEAE										
....DICTYOSPHAERIUM	*	0	--	-	--	-	190	8	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	--	-	--	-	--	-	230	10	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	*	0	51	3	--	-	220	9	--	-
....CHODATELLA	*	0	--	-	--	-	130	5	--	-
....OOCYSTIS	590#	22	--	-	2200#	73	250	10	58	4
....SELENASTRUM	--	-	--	-	*	0	--	-	--	-
...SCENEDESMACEAE										
....COELASTRUM	150	6	--	-	--	-	--	-	230#	15
....CRUCIGENIA	100	4	--	-	--	-	58	2	940#	62
....SCENEDESMUS	--	-	--	-	210	7	720#	30	170	11
....TETRASTRUM	--	-	--	-	--	-	58	2	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	100	4	26	1	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONADALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	220	8	990#	55	77	3	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	530#	20	550#	31	460#	16	--	-	--	-
..OSCILLATORIALES										
...OSCILLATORIACEAE										
....OSCILLATORIA	360	14	--	-	--	-	160	7	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	26	1	--	-	*	0	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-	--	-	58	4

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT							
16...	0845	78	2530	16.0	58	12	--
20...	0905	76	2690	14.0	52	11	--
21...	0840	76	2770	13.5	43	8.8	--
22...	1709	76	2740	13.0	49	10	--
23...	1330	76	2680	13.0	20	4.1	--
24...	1250	78	2680	13.0	36	7.6	94
29...	1700	75	2480	12.5	85	17	--
JAN							
07...	1500	.49	2610	9.0	53	.07	--
MAR							
04...	1235	99	2900	9.0	86	23	100
04...	1520	101	2970	9.0	59	16	--
05...	0810	97	3030	8.5	14	3.7	--
12...	0800	86	3060	8.5	8	1.9	--
20...	0900	88	3070	9.0	10	2.4	--
23...	1430	88	3090	9.5	14	3.3	--
25...	1430	86	2740	10.0	17	3.9	95
30...	1010	88	2880	10.5	9	2.1	--
APR							
03...	0730	86	3030	9.5	13	3.0	--
10...	1430	82	3080	12.0	8	1.8	--
13...	1000	80	3110	13.0	15	3.2	--
20...	0905	82	3150	14.0	23	5.1	--
27...	1045	84	3160	15.5	20	4.5	99
MAY							
04...	1205	72	2910	18.0	42	8.2	--
05...	1425	70	3070	18.0	41	7.7	--
07...	1800	71	3170	18.0	58	11	--
08...	1730	69	3210	18.0	55	10	--
12...	0830	71	3250	17.5	36	6.9	--
13...	1445	72	3250	18.0	23	4.5	--
14...	1515	72	2920	18.0	41	8.0	--
18...	1610	61	3080	18.0	37	6.1	--
19...	1415	63	3120	18.0	62	11	--
20...	1445	63	3160	18.0	31	5.3	--
21...	1340	63	3160	18.0	34	5.8	--
25...	0745	64	3190	17.0	23	4.0	--
25...	0900	65	3000	17.0	197	35	--
26...	1635	1090	3110	17.0	45	132	77
JUN							
01...	1715	1130	3170	19.0	15	46	--

RIO GRANDE BASIN
08384500 PECOS RIVER BELOW SUMNER DAM, NM -- Continued
WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JUN							
08...	0710	1110	2920	21.5	22	66	--
09...	1100	779	2900	23.0	51	107	--
09...	1420	779	1550	25.5	71	149	--
09...	1450	779	2920	24.5	58	122	--
10...	0740	1110	2950	23.0	73	219	--
10...	1700	61	2940	24.0	99	16	--
11...	1030	65	2990	23.5	88	15	--
11...	1145	65	2960	24.0	102	18	--
12...	0800	65	2990	23.5	84	15	--
15...	1010	88	3070	22.0	81	19	--
15...	1230	90	3080	23.0	90	22	--
22...	0630	84	3200	21.0	26	5.9	--
22...	1700	84	3210	25.5	73	17	--
23...	1130	86	3180	25.0	93	22	98
23...	1415	86	3140	25.0	93	22	--
25...	1200	86	3090	25.5	79	18	--
25...	1415	86	3100	25.5	73	17	--
29...	1230	61	2840	25.0	80	13	--
29...	1510	64	2930	25.0	99	17	--
30...	0700	65	2920	24.0	104	18	--
30...	0900	64	2920	25.0	96	17	--
JUL							
01...	1530	66	2920	28.0	161	29	--
02...	0820	66	2880	25.0	107	19	--
07...	1435	64	2190	26.0	37	6.4	--
08...	0750	64	2000	24.5	51	8.8	--
08...	1410	63	1960	25.5	55	9.4	--
09...	1915	63	1820	24.5	38	6.5	--
10...	0700	63	1780	24.0	44	7.5	--
13...	0750	96	1620	24.0	84	22	--
13...	1520	99	1720	25.0	94	25	--
14...	0815	99	1750	24.0	81	22	--
14...	1430	99	1770	25.5	79	21	--
15...	0800	101	1910	24.0	65	18	--
16...	0845	101	1880	25.0	55	15	--
16...	1610	101	1830	25.5	475	130	100
17...	0730	100	1780	24.0	76	21	--
17...	1900	100	1770	26.0	59	16	--
18...	0810	100	1860	25.0	88	24	--
18...	1745	100	1860	25.0	102	28	--

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JUL							
19...	0810	101	1800	25.0	72	20	--
21...	1400	100	1840	25.0	32	8.6	98
23...	0750	98	1840	24.5	82	22	--
23...	2015	99	1830	26.0	89	24	--
24...	0700	99	1850	24.5	47	13	--
24...	1630	102	1900	26.0	76	21	--
25...	0730	100	1870	24.0	54	15	--
27...	1345	91	1920	25.5	63	15	--
28...	1730	91	2010	24.5	49	12	--
29...	0800	91	2090	24.0	48	12	--
29...	1715	92	2070	25.5	54	13	--
30...	1020	92	2040	25.0	45	11	--
30...	1610	91	2100	25.5	50	12	--
31...	0910	92	2040	24.5	35	8.7	--
AUG							
01...	0930	90	1950	25.0	34	8.3	--
03...	1415	92	2020	25.5	47	12	--
03...	1630	91	2050	25.5	42	10	--
04...	1930	91	2060	25.0	33	8.1	--
06...	0730	92	2040	25.0	21	5.2	--
06...	1550	94	2040	26.0	54	14	--
10...	0925	88	1730	24.0	15	3.6	--
10...	1045	84	1700	24.5	14	3.2	--
17...	0930	93	1490	23.0	20	5.0	--
17...	1505	88	1480	24.0	29	6.9	--
20...	1700	80	1480	24.0	27	5.8	--
22...	1750	90	1390	24.5	11	2.7	--
24...	1430	102	1310	24.5	26	7.2	--
24...	1840	102	1310	24.5	29	8.0	--
25...	0800	101	1310	24.5	24	6.5	--
25...	1500	101	1310	24.5	14	3.8	--
26...	0830	102	1310	24.0	23	6.3	--
27...	1320	102	1320	25.0	12	3.3	--
SEP							
03...	1630	101	1500	24.5	44	12	--
03...	1830	101	1440	24.5	48	13	--
04...	0800	101	1410	23.0	45	12	--
04...	2000	101	1400	24.5	45	12	--
07...	1300	37	1430	22.0	34	3.4	--
08...	1000	37	1440	21.0	39	3.9	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
SEP							
08...	1930	37	1440	21.0	37	3.7	--
09...	0640	37	1590	20.5	43	4.3	--
11...	0700	42	1750	20.5	58	6.6	--
11...	1030	42	1760	21.0	42	4.8	--
14...	1020	42	1740	21.5	37	4.2	--
14...	1330	82	1730	23.0	25	5.5	--
15...	0700	82	1550	21.5	34	7.5	--
15...	1600	82	1570	21.5	29	6.4	--
16...	1100	101	1570	21.5	23	6.3	--
16...	1400	102	1580	22.5	24	6.6	--
17...	0915	102	1640	21.0	25	6.9	--
17...	1420	102	1720	22.0	33	9.1	--
20...	1900	100	1550	20.5	59	16	--
21...	0800	101	1550	20.0	35	9.5	--
21...	1350	104	1580	21.0	67	19	--
21...	1920	106	1610	20.5	49	14	--
22...	1420	106	1670	21.0	57	16	--
22...	1430	106	1560	20.0	105	30	85
22...	1700	106	1720	21.0	38	11	--
23...	1630	106	1670	21.0	40	11	--
24...	0710	106	1630	20.0	30	8.6	--
24...	1640	103	1570	21.0	36	10	--
25...	0945	104	1580	20.0	31	8.7	--
28...	1105	104	1580	21.5	28	7.9	--

08385000 FORT SUMNER MAIN CANAL NEAR FORT SUMNER, NM

LOCATION.--Lat 34°30'30", long 104°16'40", in SE¼SW¼SW¼ sec.1, T.3 N., R.25 E., DeBaca County, Hydrologic Unit 13060003, 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 684.8 (1,101.8 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) National Geodetic Vertical Datum of 1929 (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.

REMARKS.--Records good. Canal diverts water from Pecos River for irrigation of about 6,600 acres (27 km^2), 1961 determination, by the Fort Sumner Irrigation District. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--30 years (1940-42, 1955-81), 49.2 ft^3/s (1.393 m^3/s), 35,650 acre-ft/yr (44.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 174 ft^3/s (4.93 m^3/s) July 22, 1941; no flow many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	53	.00	.00	.00	.00	84	65	55	60	89	74
2	80	20	.00	.00	.00	.00	85	67	58	65	91	74
3	80	.00	.00	.00	.00	.00	86	64	61	55	86	75
4	80	.00	.00	.00	.00	.00	85	71	68	72	86	78
5	80	.00	.00	.00	.00	62	86	61	77	63	84	79
6	80	.00	.00	.00	.00	103	87	56	77	57	81	69
7	80	.00	.00	.00	.00	108	79	56	77	55	78	50
8	80	.00	.00	.00	.00	106	78	52	75	52	83	47
9	80	.00	.00	.00	.00	103	78	49	73	81	86	28
10	80	.00	.00	.00	.00	94	76	53	76	67	44	.00
11	80	.00	.00	.00	.00	94	76	52	77	52	7.0	13
12	80	.00	.00	.00	.00	91	75	50	68	48	.00	44
13	80	.00	.00	.00	.00	90	76	54	55	54	9.0	49
14	80	.00	.00	.00	.00	92	76	58	52	80	.25	50
15	80	.00	.00	.00	.00	90	72	67	57	83	.00	70
16	80	.00	.00	.00	.00	88	74	62	75	81	.00	74
17	76	.00	.00	.00	.00	88	69	55	71	83	38	74
18	76	.00	.00	.00	.00	94	69	51	75	86	31	74
19	76	.00	.00	.00	.00	90	66	49	78	86	.00	75
20	76	.00	.00	.00	.00	90	62	62	75	86	.00	76
21	73	.00	.00	.00	.00	90	63	46	78	82	29	77
22	74	.00	.00	.00	.00	91	65	43	76	84	70	79
23	80	.00	.00	.00	.00	91	65	45	81	85	74	81
24	88	.00	.00	.00	.00	90	60	46	83	87	74	80
25	81	.00	.00	.00	.00	89	59	48	80	88	74	75
26	86	.00	.00	.00	.00	88	56	46	80	88	73	77
27	84	.00	.00	.00	.00	88	58	66	79	88	78	77
28	83	.00	.00	.00	.00	87	51	64	79	90	82	77
29	79	.00	.00	.00	---	87	59	57	77	82	75	78
30	70	.00	.00	.00	---	85	63	54	67	82	74	81
31	66	---	.00	.00	---	85	---	53	---	88	76	---
TOTAL	2416	73.00	.00	.00	.00	2454.00	2138	1722	2160	2310	1672.25	1955.00
MEAN	77.9	2.43	.000	.000	.000	79.2	71.3	55.5	72.0	74.5	53.9	65.2
MAX	88	53	.00	.00	.00	108	87	71	83	90	91	81
MIN	48	.00	.00	.00	.00	.00	51	43	52	48	.00	.00
AC-FT	4790	145	.00	.00	.00	4870	4240	3420	4280	4580	3320	3880

CAL YR 1980 TOTAL 20923.30 MEAN 57.2 MAX 111 MIN .00 AC-FT 41500
WTR YR 1981 TOTAL 16900.25 MEAN 46.3 MAX 108 MIN .00 AC-FT 33520

08386000 PECOS RIVER NEAR ACME, NM

LOCATION.--Lat 33°32'10", long 104°22'34", in SW¼NW¼ sec.14, T.9 S., R.25 E., Chaves County, Hydrologic Unit 13060007, 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 585.3 (941.7 km).
DRAINAGE AREA.--11,380 mi^2 (29,470 km^2), approximately (contributing area).

WATER-DISCHARGE RECORDS

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.
REMARKS.--Water-discharge records fair except those below 10 ft^3/s (0.28 m^3/s), which are poor. Flow regulated by Santa Rosa Lake (station 08382810) since April 1980 and by Lake Sumner (station 08384000) since August 1937. Diversions for irrigation of about 20,000 acres (81 km^2), 1959 determination, above station.
AVERAGE DISCHARGE.--44 years (1938-81), 182 ft^3/s (5.154 m^3/s), 131,900 acre-ft/yr (163 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,000 ft^3/s (1,270 m^3/s) Sept. 23, 1941, gage height, 13.71 ft (4.179 m), from rating curve extended above 27,000 ft^3/s (765 m^3/s); no flow at times.
EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of May 28, 1937, reached a discharge of 53,000 ft^3/s (1,500 m^3/s), gage height, 14.82 ft (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.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,740 ft^3/s (77.6 m^3/s) at 1600 hours Aug. 12, gage height, 6.69 ft (2.039 m), no other peak above base of 2,500 ft^3/s (71 m^3/s); no flow July 24-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	61	21	7.7	4.0	9.5	3.2	.40	720	43	.81	65
2	37	56	17	7.7	2.7	9.0	2.4	7.0	680	204	27	53
3	28	46	15	7.7	2.9	8.6	1.9	16	700	75	7.7	40
4	23	33	14	7.7	4.4	9.0	2.4	16	818	34	4.1	32
5	19	32	13	8.2	5.5	7.0	3.5	25	895	18	17	467
6	19	29	12	8.6	5.8	5.1	4.4	413	851	10	10	274
7	25	23	13	8.6	6.2	3.7	4.7	116	796	10	45	330
8	22	18	15	8.2	6.2	2.4	5.1	46	752	56	177	186
9	21	14	15	8.2	5.5	1.6	8.2	24	741	173	107	124
10	23	12	15	8.2	5.1	1.6	6.6	17	620	179	53	95
11	17	11	15	7.7	3.2	4.7	3.2	15	554	263	144	79
12	14	10	14	8.2	2.7	11	1.4	13	526	114	1110	61
13	13	9.5	14	8.2	3.2	11	.94	11	252	51	564	51
14	14	8.6	13	8.2	3.7	11	1.9	9.5	105	28	306	34
15	17	15	13	8.2	3.2	12	8.2	8.2	55	18	198	26
16	14	30	12	7.7	3.2	9.5	10	7.0	44	17	262	27
17	11	27	12	8.6	4.0	6.6	11	7.0	31	23	206	26
18	12	24	11	11	4.4	5.5	14	6.6	23	16	263	22
19	14	24	10	13	3.5	5.5	13	6.6	17	37	105	20
20	17	21	9.5	14	2.9	5.5	13	6.6	16	17	93	18
21	19	19	8.6	15	2.4	3.2	12	6.2	14	8.6	79	20
22	25	18	8.4	15	2.1	9.5	11	5.8	11	3.5	71	21
23	37	13	9.0	14	1.9	16	12	5.1	12	.94	46	23
24	33	14	7.7	13	1.6	11	11	4.4	73	.00	30	21
25	28	23	7.7	11	1.4	9.0	9.5	3.7	274	.00	21	20
26	28	19	8.6	9.5	1.3	8.6	6.2	3.5	92	.00	21	26
27	45	21	8.6	8.2	1.2	8.6	3.7	3.2	43	.00	18	22
28	55	21	8.2	6.6	5.5	6.2	2.1	2.7	21	312	16	18
29	56	22	7.7	6.2	---	4.4	2.9	535	17	43	19	15
30	56	21	7.7	5.5	---	5.5	1.2	630	90	13	93	16
31	55	---	7.7	4.7	---	3.5	---	690	---	4.0	109	---
TOTAL	850	695.1	363.4	284.3	99.7	225.3	190.64	2660.50	9843	1771.04	4222.61	2232
MEAN	27.4	23.2	11.7	9.17	3.56	7.27	6.35	85.8	328	57.1	136	74.4
MAX	56	61	21	15	6.2	16	14	690	895	312	1110	467
MIN	11	8.6	7.7	4.7	1.2	1.6	.94	.40	11	.00	.81	15
AC-FT	1690	1380	721	564	198	447	378	5280	19520	3510	8380	4430

CAL YR 1980 TOTAL 59558.36 MEAN 163 MAX 1500 MIN .30 AC-FT 118100
WTR YR 1981 TOTAL 23437.59 MEAN 64.2 MAX 1110 MIN .00 AC-FT 46490

RIO GRANDE BASIN
08386000 PECOS RIVER NEAR ACME, NM -- Continued
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
DEC											
09...	1115	15	3650	8.1	--	5.5	11	1500	1400	--	430
JAN											
06...	1050	8.5	4130	8.0	--	6.0	23	1500	1400	--	430
30...	1200	5.1	4640	8.2	9.0	7.0	36	1700	1600	--	480
MAR											
06...	1035	5.4	4740	8.1	--	14.0	--	--	--	--	--
19...	1100	5.5	5800	8.1	16.0	13.0	42	2000	--	1900	550
APR											
07...	1100	5.6	5600	8.2	--	22.0	--	--	--	--	--
MAY											
11...	1100	15	3110	7.6	--	18.0	--	--	--	--	--
27...	1015	3.2	8180	8.2	31.5	27.5	31	2700	--	2600	750
JUN											
11...	1530	554	2770	7.6	--	27.0	--	--	--	--	--
JUL											
14...	1150	29	1290	7.7	--	28.5	--	--	--	--	--
23...	1100	1.0	2660	8.0	34.0	30.0	30	1200	--	1100	330
AUG											
14...	1050	308	864	7.7	--	23.0	--	--	--	--	--
SEP											
14...	1100	37	2430	7.6	--	23.0	--	--	--	--	--
16...	1100	27	2640	8.1	26.0	23.0	73	1200	--	1100	330

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
DEC										
09...	99	320	3.6	5.9	92	1300	470	.5	9.8	2690
JAN										
06...	110	380	4.2	3.3	--	1500	540	.5	7.6	3030
30...	120	450	4.8	3.9	71	1700	650	.5	9.3	3460
MAR										
06...	--	--	--	--	--	--	--	--	--	--
19...	140	470	4.6	5.1	84	1900	760	.6	7.4	3880
APR										
07...	--	--	--	--	--	--	--	--	--	--
MAY										
11...	--	--	--	--	--	--	--	--	--	--
27...	190	1100	9.3	9.8	100	2500	1600	.6	11	6220
JUN										
11...	--	--	--	--	--	--	--	--	--	--
JUL										
14...	--	--	--	--	--	--	--	--	--	--
23...	81	210	2.7	5.9	71	1100	290	.6	16	2080
AUG										
14...	--	--	--	--	--	--	--	--	--	--
SEP										
14...	--	--	--	--	--	--	--	--	--	--
16...	79	190	2.4	4.5	69	1100	280	.7	9.0	2040

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
DEC										
09...	.31	.34	.100	.45	.86	.050	.030	240	70	5.3
JAN										
06...	.32	.34	.140	.38	.84	.060	.010	280	50	3.6
30...	.10	.16	.210	.17	.48	.070	.000	320	40	11
MAR										
06...	--	--	--	--	--	--	--	--	--	--
19...	.00	.00	.140	.50	.64	.030	.000	340	60	5.4
APR										
07...	--	--	--	--	--	--	--	--	--	--
MAY										
11...	--	--	--	--	--	--	--	--	--	--
27...	.00	.01	.110	.57	.68	.040	.000	480	70	3.9
JUN										
11...	--	--	--	--	--	--	--	--	--	--
JUL										
14...	--	--	--	--	--	--	--	--	--	--
23...	.12	.12	.180	.55	.85	.060	<.010	240	20	4.8
AUG										
14...	--	--	--	--	--	--	--	--	--	--
SEP										
14...	--	--	--	--	--	--	--	--	--	--
16...	.12	.14	.110	.68	.91	.080	<.010	260	50	4.0

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)
JAN										
30...	1200	0	0	320	0	0	20	10	3	0
MAY										
27...	1015	2	1	480	0	0	20	20	4	1

DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
JAN									
30...	40	1	3	.1	.0	1	1	20	20
MAY									
27...	70	3	4	.2	.0	0	0	20	20

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITROGEN,TOT IN BOTTOM MATERIAL (MG/KG AS N) (00603)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)
MAY								
27...	1015	6.8	11	40	210	0	0	0

DATE	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
MAY							
27...	0	0	260	5	210	.01	0

RIO GRANDE BASIN
08386000 PECOS RIVER NEAR ACME, NM -- Continued
WATER-QUALITY RECORDS

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
MAY									
27...	1015	< 160	< .9	< 70	2.6	< 68	2.5	.08	12

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)
MAY			
27...	1015	.00	.02

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAY						
27...	1015	3.2	27.5	567	4.9	6
SEP						
16...	1100	27	23.0	165	12	79

08386900 F. HERRERA DITCH-S. AT HOLLYWOOD, NM

LOCATION.--Lat 33°19'35", long 105°36'50", in NE¼NE¼SW¼ sec.30, T.11 S., R.14 E., Lincoln County, Hydrologic Unit 13060008, 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 diversion in acre-ft prior to January 1973, published as a supplement to Rio Ruidoso at Hollywood (station 08387000).

GAGE.--Water stage recorder and concrete control. Altitude of gage is 6,430 ft (1,960 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.

REMARKS.--Records good. Water is diverted from Rio Ruidoso 1.0 mi (1.6 km) upstream for irrigation below station 08387000.

AVERAGE DISCHARGE.--21 years, 0.42 ft^3/s (0.012 m^3/s), 304 acre-ft/yr (375,000 m^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 6.6 ft^3/s (0.19 m^3/s) June 15, 1961; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 0.72 ft^3/s (0.020 m^3/s) Sept. 8; no flow most of the time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.12
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.18	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.38
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.72
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.26
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.33	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.89	1.48
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.029	.049
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.33	.72
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	1.8	2.9

CAL YR 1980 TOTAL 1.00 MEAN .003 MAX .34 MIN .00 AC-FT 2.0
WTR YR 1981 TOTAL 2.39 MEAN .007 MAX .72 MIN .00 AC-FT 4.7

08387000 RIO RUIDOSO AT HOLLYWOOD, NM

LOCATION.--Lat 33°19'43", long 105°36'34", in SW¼SE¼NE¼ sec.30, T.11 S., R.14 E., Lincoln County, Hydrologic Unit 13060008, on right upstream bridge abutment on road leading to Ruidoso Downs Race Tract, 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 Carrizo Creek, and at mile 23.4 (37.7 km).

DRAINAGE AREA.--120 mi^2 (310 km^2), 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) National Geodetic Vertical Datum of 1929. Prior to Oct. 14, 1961, at datum 0.30 ft (0.091 m) higher. Oct. 14, 1961, to Mar. 8, 1062, at datum 0.60 ft (0.183 m) higher. Mar 9, 1962, to June 18, 1065, at datum 1.0 ft (0.305) higher.

REMARKS.--Records good. Figures of discharge do not include F. Herrera ditch-S. (station 08386900), which diverts from right bank 1.5 mi (2.4 km) upstream and bypasses station for irrigation of 75 acres (30.4 hm^2), 1959 determination. Village of Ruidoso diverts from right bank 7.0 mi (11.3 km) upstream for municipal use and returns a portion of this water as effluent from sewage disposal plant 1.2 mi (1.9 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--28 years, 14.9 ft^3/s (0.422 m^3/s), 10,795 acre-ft/yr (13.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,340 ft^3/s (37.9 m^3/s) June 17, 1965, gage height, 10.05 ft (3.063 m) present datum, from rating curve extended above 110 ft^3/s (3.12 m^3/s) on basis of slope-area measurement of peak flow; minimum, 0.30 ft^3/s (0.008 m^3/s) Jan 1, 1962, May 8-9, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Sept. 29, 1941, is probably the highest since at least 1904 (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 100 ft^3/s (2.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
July 26	1215	*150	4.25	2.20	0.671	Aug. 18	1400	105	2.97	1.98	0.604

Minimum discharge, 4.8 ft^3/s (0.136 m^3/s) Feb. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	9.3	8.7	7.5	5.9	9.4	17	24	8.2	19	7.0	16
2	31	9.0	8.5	7.6	6.2	9.0	19	26	7.9	12	7.0	13
3	27	8.6	8.4	7.8	6.3	12	19	24	7.9	9.6	8.0	12
4	24	8.6	8.3	7.4	6.7	12	19	23	7.8	8.8	12	12
5	21	8.3	8.3	7.2	6.4	11	17	23	7.9	7.9	10	14
6	20	8.3	8.1	7.3	6.3	10	17	22	7.7	7.5	15	13
7	18	8.0	8.4	7.0	6.7	9.3	18	19	7.8	7.4	15	21
8	17	8.0	9.3	7.3	6.6	8.8	20	18	7.1	7.5	12	21
9	16	8.0	8.1	6.6	13	9.0	21	17	5.9	8.7	10	22
10	15	7.7	7.7	6.7	8.4	8.5	24	16	5.7	8.2	10	18
11	14	7.7	7.7	6.8	7.2	8.6	27	15	5.9	7.8	40	17
12	14	8.0	8.3	6.9	6.9	8.6	28	14	6.4	9.5	70	17
13	13	8.3	10	7.0	7.0	8.6	30	13	6.1	9.2	41	16
14	13	8.3	9.1	6.8	6.8	8.9	33	12	5.9	10	37	15
15	12	8.6	8.6	6.4	7.2	8.7	31	12	6.2	9.8	29	15
16	12	9.3	8.8	6.9	7.2	9.6	28	11	5.9	9.6	27	14
17	11	9.0	8.7	6.8	7.2	11	28	11	6.0	12	30	19
18	11	8.3	8.6	6.7	7.5	12	29	10	6.0	9.8	82	18
19	11	8.6	8.1	7.5	8.2	13	27	9.0	6.1	8.7	71	14
20	11	8.3	7.5	6.9	9.0	14	26	8.8	6.0	8.0	53	13
21	11	8.3	7.8	7.1	9.1	13	25	7.8	5.8	6.8	40	12
22	11	8.3	8.1	7.3	8.4	13	25	8.2	6.2	6.8	31	11
23	11	8.3	7.9	7.1	8.9	13	25	8.7	6.7	6.7	26	12
24	10	8.3	7.7	6.7	8.9	13	22	8.3	9.2	7.4	23	11
25	10	9.0	7.3	6.5	8.9	14	20	7.8	7.8	7.0	20	11
26	9.7	8.6	7.9	6.4	8.9	15	20	7.1	5.6	16	17	11
27	9.3	10	7.8	6.3	9.8	18	22	7.1	5.5	7.5	17	9.4
28	11	11	7.8	6.5	11	19	24	7.0	6.5	6.5	17	9.5
29	9.7	9.0	7.9	6.6	---	19	27	8.0	9.5	8.9	15	9.3
30	9.7	9.3	8.1	6.2	---	17	25	7.7	19	7.3	14	9.1
31	9.7	---	7.4	6.6	---	17	---	8.4	---	6.9	12	---
TOTAL	457.1	258.3	254.9	214.4	220.6	373.0	713	413.9	216.2	278.8	818.0	425.3
MEAN	14.7	8.61	8.22	6.92	7.88	12.0	23.8	13.4	7.21	8.99	26.4	14.2
MAX	34	11	10	7.8	13	19	33	26	19	19	82	22
MIN	9.3	7.7	7.3	6.2	5.9	8.5	17	7.0	5.5	6.5	7.0	9.1
AC-FT	907	512	506	425	438	740	1410	821	429	553	1620	844

CAL YR 1980 TOTAL 6426.8 MEAN 17.6 MAX 99 MIN 5.7 AC-FT 12750
WTR YR 1981 TOTAL 4643.5 MEAN 12.7 MAX 82 MIN 5.5 AC-FT 9210

08387600 EAGLE CREEK BELOW SOUTH FORK, NEAR ALTO, NM

LOCATION.--Lat 33°23'33", long 105°43'16", in SE¼SW¼ sec.31, T.10 S., R.13 E., Lincoln County, Hydrologic Unit 13060008, in Lincoln National Forest 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 mi^2 (21.08 km^2).
PERIOD OF RECORD.--August 1969 to December 1980 (discontinued).
GAGE.--Water-stage recorder and concrete control. Altitude of gage is 7,600 ft (2,316 m), from topographic map.
REMARKS.--Records fair. No diversions for irrigation above station. Some water is stored in small unregulated recreational ponds on the Mescalero Apache Indian Reservation upstream. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--11 years (water years 1970-80), 3.14 ft^3/s (0.089 m^3/s), 2,270 acre-ft/yr (2.80 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 206 ft^3/s (5.834 m^3/s) Dec. 19, 1978, gage height, 3.79 ft (1.155 m), from rating curve extended above 21 ft^3/s (0.59 m^3/s); minimum, 0.05 ft^3/s (0.001 m^3/s) June 30, July 3, 4, 1974.
EXTREMES FOR CURRENT YEAR.--Maximum discharge during period October to December 1980, 3.8 ft^3/s (0.11 m^3/s) Oct. 1, gage height, 2.48 ft (0.756 m), no peak above base of 25 ft^3/s (0.7 m^3/s); minimum, 0.37 ft^3/s (0.010 m^3/s) Dec. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	.69	.58									
2	2.8	.69	.57									
3	2.5	.69	.57									
4	2.1	.66	.54									
5	1.8	.65	.54									
6	1.6	.63	.54									
7	1.5	.63	.55									
8	1.4	.63	.54									
9	1.3	.63	.53									
10	1.2	.63	.51									
11	1.2	.62	.56									
12	1.1	.59	.49									
13	1.1	.61	.55									
14	.99	.61	.53									
15	.97	.62	.51									
16	.96	.64	.49									
17	.91	.63	.49									
18	.88	.62	.48									
19	.88	.62	.45									
20	.85	.59	.46									
21	.84	.59	.46									
22	.79	.59	.45									
23	.75	.59	.44									
24	.71	.59	.43									
25	.71	.60	.43									
26	.71	.59	.44									
27	.69	.60	.42									
28	.72	.58	.42									
29	.71	.58	.42									
30	.71	.58	.41									
31	.71	---	.40									
TOTAL	37.39	18.57	15.20									
MEAN	1.21	.62	.49									
MAX	3.3	.69	.58									
MIN	.69	.58	.40									
AC-FT	74	37	30									

CAL YR 1980 TOTAL 814.90 MEAN 2.23 MAX 15 MIN .40 AC-FT 1620

08387800 EAGLE CREEK NEAR ALTO, NM

LOCATION.--Lat 33°23'29", long 105°36'39", in SW¼SE¼SE¼ sec.31, T.10 S., R.14 E., Lincoln County, Hydrologic Unit 13060008, 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 mi^2 (40.7 km^2).
PERIOD OF RECORD.--October 1969 to December 1980 (discontinued).
GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,840 ft (2,085 m), from topographic map.
REMARKS.--Records good. Discharge at this station is affected by Alto Reservoir and municipal water supply diversions for Ruidoso and Capitan.
AVERAGE DISCHARGE.--11 years (water years 1970-80), 1.73 ft^3/s (0.049 m^3/s), 1,250 acre-ft/yr (1.54 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 72 ft^3/s (2.04 m^3/s) Sept. 16, 1976, gage height, 2.03 ft (0.619 m), from rating curve extended above 22 ft^3/s (0.62 m^3/s); no flow most of time.
EXTREMES FOR CURRENT YEAR.--No flow during period October to December 1980.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00									
2	.00	.00	.00									
3	.00	.00	.00									
4	.00	.00	.00									
5	.00	.00	.00									
6	.00	.00	.00									
7	.00	.00	.00									
8	.00	.00	.00									
9	.00	.00	.00									
10	.00	.00	.00									
11	.00	.00	.00									
12	.00	.00	.00									
13	.00	.00	.00									
14	.00	.00	.00									
15	.00	.00	.00									
16	.00	.00	.00									
17	.00	.00	.00									
18	.00	.00	.00									
19	.00	.00	.00									
20	.00	.00	.00									
21	.00	.00	.00									
22	.00	.00	.00									
23	.00	.00	.00									
24	.00	.00	.00									
25	.00	.00	.00									
26	.00	.00	.00									
27	.00	.00	.00									
28	.00	.00	.00									
29	.00	.00	.00									
30	.00	.00	.00									
31	.00	---	.00									
TOTAL	.00	.00	.00									
MEAN	.000	.000	.000									
MAX	.00	.00	.00									
MIN	.00	.00	.00									
AC-FT	.00	.00	.00									

CAL YR 1980 TOTAL 52.38 MEAN .14 MAX 5.4 MIN .00 AC-FT 104

08390500 RIO HONDO AT DIAMOND A RANCH, NEAR ROSWELL, NM

LOCATION.--Lat 33°20'57", long 104°51'05", in NE¼NE¼ sec.20, T.11 S, R.21 E., Chaves County, Hydrologic Unit 13060008, 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 mi^2 (2.450 km^2), 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, State Engineer Office, Streamflow and Reservoir Content 1888-1954.

REVISED RECORDS.--WSP 1392: Drainage area. WSP 1512: 1939-40(P), 1941, 1942-43(P), 1946(P).

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 left bank at same datum. Supplemental water-stage recorder on left bank Nov. 11, 1965, to December 1972, at same datum.

REMARKS.--Records fair. Diversions and ground-water withdrawals above station for irrigation above and below station of about 6,500 acres (26 km^2), 1959 determination. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--42 years (1939-81) 21.6 ft^3/s (0.612 m^3/s), 15,650 acre-ft/yr (19.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54,800 ft^3/s (1,550 m^3/s) June 18, 1965, gage height, 26.40 ft (8.047 m), from rating curve extended above 3,100 ft^3/s (88 m^3/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.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood on June 1, 1937, reached a discharge of 24,900 ft^3/s (705 m^3/s) at Riverside about 13 mi (21 km) upstream. Other major floods occurred Oct. 31, 1901, Sept. 29, 30, 1904, and July 25, 1905.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,000 ft^3/s (28 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Aug. 7	0700	1610	45.6	a17.10	5.212	Aug. 17	0100	3130	88.6	b23.0	7.01
Aug. 11	0600	2100	59.5	19.55	5.959	Aug. 18	0800	c*11700	331	a26.06	7.943
Aug. 14	2000	3320	94.0	a23.58	7.187						

a From floodmarks
b About
c From rating curve extended as explained above.
No flow most of time

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	.00	.00	.00	.00	.00	.00	.00	.00	.00	45	.00
2	27	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.7	.00
3	26	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.5	.00
4	23	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00
5	21	.00	.00	.00	.00	.00	.00	.00	.00	.00	51	.00
6	15	.00	.00	.00	.00	.00	.00	.00	.00	.00	47	4.0
7	11	.00	.00	.00	.00	.00	.00	.00	.00	.00	323	7.1
8	11	.00	.00	.00	.00	.00	.00	.00	.00	.00	37	13
9	9.1	.00	.00	.00	.00	.00	.00	.00	.00	79	14	14
10	8.3	.00	.00	.00	.00	.00	.00	.00	.00	8.3	7.1	14
11	7.5	.00	.00	.00	.00	.00	.00	.00	.00	1.5	362	9.1
12	7.5	.00	.00	.00	.00	.00	.00	.00	.00	4.4	150	6.4
13	7.5	.00	.00	.00	.00	.00	.00	.00	.00	9.1	52	5.4
14	7.5	.00	.00	.00	.00	.00	.00	.00	.00	4.3	439	4.8
15	5.4	.00	.00	.00	.00	.00	.00	.00	.00	14	127	7.8
16	.04	.00	.00	.00	.00	.00	.00	.00	.00	3.9	60	13
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.0	524	10
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.2	804	7.1
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.52	99	2.4
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	69	.86
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	42	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	32	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	25	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	21	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	15	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	11	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.4	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.5	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	2.7	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	3.0	.00
31	.00	---	.00	.00	---	.00	---	.00	---	11	.26	---
TOTAL	217.84	.00	.00	.00	.00	.00	.00	.00	.00	142.22	3383.16	118.96
MEAN	7.03	.000	.000	.000	.000	.000	.000	.000	.000	4.59	109	3.97
MAX	31	.00	.00	.00	.00	.00	.00	.00	.00	79	804	14
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.26	.00
AC-FT	432	.00	.00	.00	.00	.00	.00	.00	.00	282	6710	236

CAL YR 1980 TOTAL 4060.78 MEAN 11.1 MAX 996 MIN .00 AC-FT 8050
WTR YR 1981 TOTAL 3862.18 MEAN 10.6 MAX 804 MIN .00 AC-FT 7660

08390600 TWO RIVERS RESERVOIR NEAR ROSWELL, NM

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, Hydrologic Unit 13060008, 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., at left end of Rocky Dam on Rocky Arroyo, and 14 mi (22.5 km) southwest of Roswell.

DRAINAGE AREA.--1,027 mi^2 (2,660 km^2); Rio Hondo, 963 mi^2 (2,494 km^2); Rocky Arroyo, 64 mi^2 (166 km^2).

PERIOD OF RECORD.--July 1963 to current year (prior to October 1965 monthend contents only). Prior to October 1966 contents at 0800 hours.

GAGE.--Water-stage recorders. Datum of gages is National Geodetic Vertical Datum of 1929.

REMARKS.--Two Rivers Reservoir, completed July 16, 1963, is formed by earthfill dams on Rio Hondo, which forms Rio Hondo Reservoir, and on 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 hm^3) at elevation 4,032.0 ft (1,228.95 m), crest of ungated spillway. Capacity of Rio Hondo Reservoir, 181 acre-ft (223,000 m^3) between elevations 3,957.0 ft (1,206.09 m), sill of outlet gate, and 3,980.0 ft (1,213.10 m). Capacity of Rocky Arroyo Reservoir, 13,410 acre-ft (16.5 hm^3) between elevations 3,945.0 ft (1,202.44 m), sill of outlet gate, and 3,980.0 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.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Rio Hondo Reservoir: maximum contents at 0800 hours, 1,260 acre-ft (1.55 hm^3) July 29, 1965, elevation, 3,985.7 ft (1,214.84 m); no storage most of time.

Rocky Arroyo Reservoir: maximum contents at 0800 hours, 6,090 acre-ft (7.51 hm^3) June 18, 1965, elevation 3,970.7 ft (1,210.27 m); no storage most of time.

EXTREMES FOR CURRENT YEAR.--Rio Hondo Reservoir: maximum contents at 2400 hours, about 300 acre-ft (370,000 m^3) Aug. 18; no storage most of time.

Rocky Arroyo Reservoir: no storage during year.

CONTENTS, IN ACRE-FEET, AND ELEVATION, IN FEET,
WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Rio Hondo Reservoir

NOTE.--Storage apparently accurred for several days during August when outlet gates were partially closed. Maximum contents at 2400 hours about 300 acre-feet (370,000 m^3) Aug. 18.

Rocky Arroyo Reservoir

No storage during year.

08390800 RIO HONDO BELOW DIAMOND A DAM, NEAR ROSWELL, NM

LOCATION.--Lat 33°18'05", long 104°43'12", in NE¼SE¼NE¼ sec. 4, T.12 S., R.22 E., Chaves County, Hydrologic Unit 13060008, 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). Mouth at Pecos River mile 566.0 (910.7 km).

DRAINAGE AREA.--963 mi^2 (2,490 km^2), 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) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Records fair. Diversions and ground-water withdrawals for irrigation of about 6,500 acres (26 km^2), 1959 determination, above station. This record represents the outflow from Two Rivers Reservoir through Diamond A Dam; flow from reservoir can also be discharged into Rocky Arroyo through Rocky Dam (see REMARKS for station 08390600). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--18 years, 8.96 ft^3/s (0.254 m^3/s), 6,490 acre-ft/yr (8.00 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 659 ft^3/s (18.7 m^3/s) July 29, 1965, gage height, 4.91 ft (1.497 m); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 243 ft^3/s (6.88 m^3/s) July 9, gage height, 3.22 ft (0.981 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	.00	.00	.00	.00	.00	.00	.00	.00	.00	26	.00
2	26	.00	.00	.00	.00	.00	.00	16	.00	.00	4.9	.00
3	20	.00	.00	.00	.00	.00	.00	24	.00	.00	.02	.00
4	19	.00	.00	.00	.00	.00	.00	.04	.00	.00	2.4	.00
5	14	.00	.00	.00	.00	.00	.00	.00	.00	.00	29	.05
6	9.9	.00	.00	.00	.00	.00	.00	.05	.00	.00	27	.02
7	5.8	.00	.00	.00	.00	.00	.00	.00	.00	.00	82	2.6
8	3.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	105	11
9	1.2	.00	.00	.00	.00	.00	.00	.00	.00	38	31	12
10	.40	.00	.00	.00	.00	.00	.00	.00	.00	17	1.4	12
11	.34	.00	.00	.00	.00	.00	.00	.00	.00	.04	66	8.0
12	.09	.00	.00	.00	.00	.00	.00	.00	.00	.00	108	3.4
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	106	1.6
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	103	.61
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.71	108	.10
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.8	105	5.6
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	108	7.0
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	111	5.6
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	109	.78
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	108	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	103	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	63	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	28	.05
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	21	.02
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	15	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.3	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.2	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.67	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.02	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	131.73	.00	.00	.00	.00	.00	.00	40.09	.00	60.58	1583.91	70.43
MEAN	4.25	.000	.000	.000	.000	.000	.000	1.29	.000	1.95	51.1	2.35
MAX	32	.00	.00	.00	.00	.00	.00	24	.00	38	111	12
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	261	.00	.00	.00	.00	.00	.00	80	.00	120	3140	140

CAL YR 1980 TOTAL 1706.32 MEAN 4.66 MAX 168 MIN .00 AC-FT 3380
WTR YR 1981 TOTAL 1886.74 MEAN 5.17 MAX 111 MIN .00 AC-FT 3740

08393200 ROCKY ARROYO ABOVE TWO RIVERS RESERVOIR, NEAR ROSWELL, NM

Station discontinued September 30, 1980

08393300 ROCKY ARROYO BELOW ROCKY DAM, NEAR ROSWELL, NM

Station discontinued September 30,1980

08393500 RIO HONDO AT ROSWELL, NM

LOCATION.--Lat 33°22'19", long 104°32'42", in NE¼SE¼ sec.7, T.11 S., R.24 E., Chaves County, Hydrologic Unit 13060008, on left bank, 0.3 mi (0.5 km) upstream from Sunset Ave. bridge in Roswell, 6.3 mi (10.1 km) downstream from Rocky Arroyo and 11.7 mi (18.8 km) upstream from mouth.
DRAINAGE AREA.--1,070 mi^2 (2,770 km^2), approximately, contributing area.
PERIOD OF RECORD.--February to September 1981. Records for June 1903 to February 1906, published in WSP 358, are unreliable and should not be used.
REVISED RECORDS.--See PERIOD OF RECORD.
GAGE.--Water-stage recorder. Altitude of gage is 3,615 ft (1,101 m), from topographic map.
REMARKS.--Records fair. Flow regulated by Two Rivers Reservoir (station 08390600). Diversions and ground-water withdrawals for irrigation above station. Several observations of water temperature were made during the year.
EXTREMES FOR CURRENT YEAR.--Maximum discharge during period February to September, 355 ft^3/s (10.1 m^3/s) May 3, gage height 7.5 ft (2.29 m), from floodmarks, from rating curve extended above 110 ft^3/s (3.1 m^3/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	.00	.00	.00	.00	.00	7.6	.00
2					---	.00	.00	1.1	.00	.00	8.7	.00
3					---	.00	.00	18	.00	.00	.00	.00
4					---	.00	.00	.35	.00	.00	.00	.00
5					---	.00	.00	1.4	.00	.00	15	.00
6					---	.00	.00	1.9	.00	.00	18	.00
7					---	.00	.00	.00	.00	.00	63	.00
8					---	.00	.00	.00	.00	.00	94	2.8
9					---	.00	.00	.00	.00	56	41	4.6
10					---	.00	.00	.00	.00	96	1.1	4.7
11					---	.00	.00	.00	.00	5.3	44	2.4
12					---	.00	.00	.00	.00	.00	118	.29
13					---	.00	.00	.00	.00	.00	108	.00
14					---	.00	.00	.00	.00	.00	107	.00
15					---	.00	.00	.00	.00	.18	102	.00
16					---	.00	.00	.00	.00	.22	99	.00
17					---	.00	.00	.00	.00	.00	101	.05
18					---	.00	.00	.00	.00	.00	112	1.1
19					.00	.00	.00	.00	.00	.00	197	.15
20					.00	.00	.00	.00	.00	.00	166	.00
21					.00	.00	.00	.00	.00	.00	92	.00
22					.00	.00	.00	.00	.00	.00	63	.00
23					.00	.00	.00	.00	.00	.00	22	.00
24					.00	.00	.00	.00	.00	.00	14	.00
25					.00	.00	.00	.00	.00	.00	7.2	.00
26					.00	.00	.00	.00	.00	.00	2.1	.00
27					.00	.00	.00	.00	.00	.00	.22	.00
28					.00	.00	.00	.00	.00	.00	.00	.00
29					---	.00	.00	.00	.10	.00	.00	.00
30					---	.00	.00	.00	.00	.00	.00	.00
31					---	.00	---	.00	---	.00	.00	---
TOTAL					---	.00	.00	22.75	.10	157.70	1602.92	16.09
MEAN					---	.000	.000	.73	.003	5.09	51.7	.54
MAX					---	.00	.00	18	.10	96	197	4.7
MIN					---	.00	.00	.00	.00	.00	.00	.00
AC-FT					---	.00	.00	45	.2	313	3180	32

08394100 PECOS RIVER NEAR HAGERMAN, NM

LOCATION.--Lat 33°10'08", long 104°18'24", in SE¼SW¼SE¼ sec. 23, T.13 S., R.26 E., Chaves County, Hydrologic Unit 13060007, 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 544.6 (876.3 km).
DRAINAGE AREA.--13,630 mi^2 (35,300 km^2), 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.
REMARKS.--Records fair except those above 1,000 ft^3/s (28 m^3/s), which are poor. Flow regulated by Santa Rosa Lake (station 08382810) since April 1980, by Lake Sumner (station 08384000) since August 1937, and by Two Rivers Reservoir (station 08390600) since July 1963. Diversions and ground-water withdrawals for irrigation of about 80,000 acres (320 km^2) above station. Several observations of water temperature were made during the year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge determined 3,700 ft^3/s (10.5 m^3/s) Sept. 11, 1969; no flow at times in 1971, 1974, 1976, 1977.
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge determined, 1,430 ft^3/s (40.5 m^3/s) Aug. 13; minimum, 6.8 ft^3/s (0.19 m^3/s) Apr. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	68	57	33	29	28	18	13	714	88	27	124
2	74	71	57	33	28	28	17	16	741	76	21	90
3	61	72	52	34	28	31	16	165	752	133	29	75
4	51	66	54	34	28	32	15	111	785	88	38	72
5	45	57	51	34	29	30	14	60	862	56	27	80
6	41	54	47	34	29	29	14	428	851	36	24	620
7	41	56	42	34	29	27	14	251	824	26	32	292
8	42	50	42	34	29	25	12	158	801	23	89	248
9	40	46	42	34	29	24	11	99	796	167	180	171
10	40	41	42	32	30	24	8.7	67	719	254	124	135
11	38	37	42	32	29	24	13	51	550	191	84	110
12	38	34	41	32	26	26	14	42	530	215	284	91
13	36	34	41	32	26	27	12	35	315	115	1430	81
14	34	34	41	32	26	29	14	29	169	71	578	70
15	32	36	40	32	26	30	16	26	118	50	346	59
16	31	43	40	33	26	28	16	24	87	42	254	51
17	32	52	38	33	26	27	16	21	64	39	492	47
18	30	58	38	36	29	25	20	20	45	29	318	48
19	28	55	37	38	28	23	21	20	30	29	282	47
20	29	52	37	39	28	22	22	19	33	27	282	45
21	31	51	36	40	27	22	19	18	35	36	215	42
22	34	49	36	40	26	20	24	16	32	22	180	40
23	38	46	35	40	26	20	29	16	30	17	135	47
24	42	44	34	41	24	22	19	15	28	14	100	49
25	47	51	34	40	24	29	19	14	87	13	81	47
26	46	56	34	38	23	26	22	13	127	12	67	44
27	43	56	34	34	22	24	20	11	93	10	64	44
28	44	56	34	33	24	21	16	11	62	80	60	45
29	55	58	34	33	---	21	13	100	42	219	54	43
30	64	56	34	31	---	20	14	565	75	87	52	40
31	70	---	33	30	---	19	---	692	---	45	86	---
TOTAL	1371	1539	1259	1075	754	783	498.7	3126	10397	2310	6035	2997
MEAN	44.2	51.3	40.6	34.7	26.9	25.3	16.6	101	347	74.5	195	99.9
MAX	94	72	57	41	30	32	29	692	862	254	1430	620
MIN	28	34	33	30	22	19	8.7	11	28	10	21	40
AC-FT	2720	3050	2500	2130	1500	1550	989	6200	20620	4580	11970	5940

CAL YR 1980 TOTAL 64384.3 MEAN 176 MAX 2520 MIN 5.6 AC-FT 127700
WTR YR 1981 TOTAL 32144.7 MEAN 88.1 MAX 1430 MIN 8.7 AC-FT 63760

08394500 RIO FELIX AT OLD HIGHWAY BRIDGE, NEAR HAGERMAN, NM

LOCATION.--Lat 33°07'30", long 104°20'40", in SW¼SW¼SE¼ sec.4, T.14 S., R.26 E., Chaves County, Hydrologic Unit 13060009, 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 541.4 (871.1 km).

DRAINAGE AREA.--932 mi^2 (2,410 km^2), 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.

REVISED RECORDS.--WSP 928: 1940(M). WSP 1562: 1939-40, 1941(M).

GAGE.--Water-stage recorder. Datum of gage is 3,403.40 ft (1,037.356 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for periods of no gage height record, Oct. 4 to Jan 5 and Aug. 11-12, which are poor. Diversions for irrigation of about 350 acres (1.4 km^2), 1959 determination, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--42 years, 14.4 ft^3/s (0.408 m^3/s), 10,430 acre-ft/yr (12.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 74,000 ft^3/s (2,100 m^3/s) Oct. 7, 1954, gage height, 27.5 ft (8.38 m), from floodmarks, from rating curve extended above 12,000 ft^3/s (340 m^3/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).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 1, 1904, is probably second highest since 1894; another major flood occurred in April 1915.

EXTREMES FOR CURRENT YEAR.--Maximum discharge recorded, 496 ft^3/s (14.0 m^3/s) Aug. 8, gage height, 7.49 ft (2.283 m), but may have been exceeded during period of no gage-height record Aug. 11-12, no peak above base of 500 ft^3/s (14 m^3/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	.00	.00	.00	6.3	.00	.00	.00	.00	.00	.00	.00
2	12	.00	.00	.00	6.3	.00	.00	.00	.00	.00	.00	.00
3	8.8	.00	.00	4.0	6.1	4.7	.00	5.0	.00	.00	.00	.00
4	5.0	.00	.00	4.0	6.1	3.1	.00	6.5	.00	.00	.00	.00
5	2.0	.00	.00	4.0	7.4	4.3	.00	.01	.00	.00	.00	.39
6	1.0	.00	.00	4.7	8.0	.08	.00	4.8	.00	.00	.00	.88
7	.00	.00	.00	4.7	8.5	.06	.00	.08	.00	.00	1.0	5.4
8	.00	.00	.00	4.8	9.1	4.8	.00	.00	.00	.00	120	18
9	.00	.00	.00	4.7	9.1	2.5	.00	.00	.00	.00	1.4	13
10	.00	.00	.00	4.5	7.7	.00	.00	.00	.00	.00	.00	12
11	.00	.00	.00	3.8	8.8	.00	.00	.00	.00	.00	227	13
12	.00	.00	.00	3.9	8.8	.00	.00	.00	.00	.00	27	9.9
13	.00	.00	.00	3.6	.59	.00	.00	.00	.00	.00	.01	7.0
14	.00	.00	.00	4.8	.00	.00	.01	.00	.00	.00	.00	4.7
15	.00	.00	.00	5.2	.00	.00	.00	.00	.00	.00	.00	1.6
16	.00	.00	.00	5.2	1.2	.00	.00	.00	.00	.00	.00	2.3
17	.00	.00	.00	7.0	4.8	.00	.00	.00	.00	.00	1.7	3.6
18	.00	.00	.00	7.2	2.8	.00	.00	.00	.00	.00	1.3	3.3
19	.00	.00	.00	7.4	.00	.00	.00	.00	.00	.00	1.2	3.9
20	.00	.00	.00	7.4	.00	.00	.00	.00	.00	.00	1.5	2.9
21	.00	.00	.00	7.2	.00	.00	.00	.00	.00	.00	.99	3.5
22	.00	.00	.00	5.9	.00	.00	.00	.00	.00	.00	.18	.00
23	.00	.00	.00	5.9	.00	.00	.00	.00	.00	.00	.00	1.8
24	.00	.00	.00	6.1	2.3	.00	.00	.00	.00	.00	.00	.01
25	.00	.00	.00	6.3	1.3	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	5.6	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	5.6	.00	.00	.00	.00	.00	.00	.00	1.4
28	.00	.00	.00	6.1	.00	.00	.00	.00	.00	.00	.00	5.2
29	.00	.00	.00	7.0	---	.00	.00	.00	.00	.00	.00	3.4
30	.00	.00	.00	5.9	---	.00	.00	.00	.00	.00	.00	1.1
31	.00	---	.00	6.5	---	.00	---	.00	---	.00	.00	---
TOTAL	44.80	.00	.00	159.00	105.19	19.54	.01	16.39	.00	.00	383.28	118.28
MEAN	1.45	.000	.000	5.13	3.76	.63	.000	.53	.000	.000	12.4	3.94
MAX	16	.00	.00	7.4	9.1	4.8	.01	6.5	.00	.00	227	18
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	89	.00	.00	315	209	39	.02	33	.00	.00	760	235

CAL YR 1980 TOTAL 2588.45 MEAN 7.07 MAX 678 MIN .00 AC-FT 5130
WTR YR 1981 TOTAL 846.49 MEAN 2.32 MAX 227 MIN .00 AC-FT 1680

08395500 PECOS RIVER NEAR LAKE ARTHUR, NM

LOCATION.--Lat 32°59'18", long 104°19'20", in SW¼NE¼ sec.27, T.15 S., R.26 E., Chaves County, Hydrologic Unit 1306007, 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 522.0 (839.9 km).

DRAINAGE AREA.--14,760 mi^2 (38,230 km^2), 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) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Santa Rosa Lake (station 08382810) since April 1980, by Lake Sumner (station 08384000) since August 1937, and by Two Rivers Reservoir (station 08390600) since July 1963. Diversions and ground-water withdrawals for irrigation of about 124,000 acres (500 km^2), 1959 determination, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--43 years, 231 ft^3/s (6.542 m^3/s), 167,400 acre-ft/yr (206 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,600 ft^3/s (1,410 m^3/s) Sept. 24, 1941, gage height, 21.90 ft (6.675 m), from rating curve extended above 16,100 ft^3/s (456 m^3/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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 30, 1937, reached a stage of 21.77 ft (6.635 m), discharge, 51,500 ft^3/s (1,460 m^3/s), on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,500 ft^3/s (42.5 m^3/s) Aug. 13, gage height, 5.55 ft (1.692 m); minimum, 3.7 ft^3/s (0.10 m^3/s) Mar. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	80	66	44	45	18	8.2	7.7	628	79	35	84
2	141	82	65	43	43	22	9.6	9.6	649	62	14	97
3	125	83	65	45	43	26	7.5	52	650	99	12	43
4	105	84	63	45	42	33	5.9	129	652	96	16	41
5	89	81	62	45	42	27	7.2	52	751	62	24	53
6	81	75	62	45	42	30	11	160	772	35	22	525
7	74	69	59	45	43	29	12	318	715	18	21	461
8	69	68	52	45	43	17	11	174	686	9.3	80	453
9	68	66	50	46	43	25	13	110	641	11	190	317
10	70	61	51	46	42	22	15	72	643	282	170	236
11	68	57	51	46	43	13	14	50	496	208	120	184
12	66	50	51	45	42	9.1	11	30	440	203	425	156
13	66	47	51	45	40	19	15	23	362	176	995	136
14	62	45	51	45	34	28	15	19	183	89	638	120
15	53	43	52	45	31	28	17	17	104	54	463	107
16	50	48	51	45	29	29	18	18	59	32	316	86
17	49	56	52	45	27	26	17	21	36	34	463	76
18	49	61	52	46	27	23	17	28	31	26	418	75
19	49	66	52	47	27	20	17	25	25	16	379	74
20	49	66	52	49	28	19	18	24	27	24	375	75
21	49	65	50	51	31	20	19	24	31	16	352	69
22	49	64	49	52	33	19	18	23	33	21	245	70
23	50	62	49	53	33	21	19	19	31	15	209	69
24	51	58	48	53	33	9.5	27	16	29	9.6	151	70
25	54	61	47	54	33	9.6	19	16	25	8.5	106	69
26	64	64	47	55	29	12	16	16	146	7.8	84	64
27	66	66	47	53	27	12	23	16	94	7.4	60	61
28	64	65	46	50	16	12	17	15	56	7.3	44	60
29	64	65	46	48	---	8.1	11	14	39	260	42	67
30	68	66	46	47	---	8.0	9.6	413	31	136	40	65
31	75	---	45	46	---	6.5	---	597	---	75	39	---
TOTAL	2193	1924	1630	1469	991	600.8	438.0	2508.3	9065	2178.9	6548	4063
MEAN	70.7	64.1	52.6	47.4	35.4	19.4	14.6	80.9	302	70.3	211	135
MAX	156	84	66	55	45	33	27	597	772	282	995	525
MIN	49	43	45	43	16	6.5	5.9	7.7	25	7.3	12	41
AC-FT	4350	3820	3230	2910	1970	1190	869	4980	17980	4320	12990	8060

CAL YR 1980 TOTAL 63448.2 MEAN 173 MAX 1180 MIN 5.0 AC-FT 125800
WTR YR 1981 TOTAL 33609.0 MEAN 92.1 MAX 995 MIN 5.9 AC-FT 66660

08396500 PECOS RIVER NEAR ARTESIA, NM
(Surveillance program station)

LOCATION.--Lat 32°50'27", long 104°19'23", in NW¼NW¼ sec.18, T.17 S., R.27 E., Eddy County, Hydrologic Unit 13060007, on left bank 250 ft (76 m) upstream from bridge on State Highway 83, 4.3 mi (6.9 km) east of Artesia, 7.0 mi (11.3 km) upstream from Rio Penasco, 17 mi (27.4 km) upstream from McMillan Dam, and at mile 503.9 (810.8 km). Prior to Apr. 3, 1981, at site 250 ft (76 m) downstream.
DRAINAGE AREA.--15,300 mi^2 (39,630 km^2), approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1905 to June 1909, August 1909 to current year. Monthly discharge only for some periods, published in 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."
REVISED RECORDS.--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.
GAGE.--Water-stage recorder. Datum of gage is 3,291.92 ft (1,003.376 m) National Geodetic Vertical Datum of 1929. See WSP 1923 or 2123 for history of changes prior to Apr. 5, 1941. Apr. 5, 1941 to Apr. 2, 1981, water-stage recorder at site 250 ft (76 m) downstream at same datum.
REMARKS.--Water-discharge records fair. Flow regulated by Santa Rosa Lake (station 08382810) since Arpil 1980, by Lake Sumner (station 08384000) since August 1937, and by Two Rivers Reservoir (station 08390600) since July 1963. Diversions and ground-water withdrawals for irrigation of about 154,000 acres (620 km^2), 1959 determination, above station.
AVERAGE DISCHARGE.--45 years, 246 ft^3/s (6.967 m^3/s), 178,200 acre-ft/yr (220 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge probably occurred May 30, 1937, when a discharge of 51,500 ft^3/s (1,460 m^3/s) was measured by slope-area method at a point 15 mi (24.1 km) upstream, gage height, 14.7 ft (4.48 m), site and datum then in use; no flow at times in 1934, 1946-47, 1953-54, 1957, 1964-65.
EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest flood since at least 1893 occurred Oct. 2, 1904, discharge not determined; the peak inflow to Lake McMillan, which includes Rio Penasco and Fourmile Draw, was estimated at 82,000 ft^3/s (2,320 m^3/s). The second highest flood occurred July 25, 1905, discharge below Rio Penasco, 50,300 ft^3/s (1,420 m^3/s), based on gain in storage and spill from Lake McMillan. The floods in August 1893and October 1904 damaged McMillan Dam and washed out Avalon Dam.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,080 ft^3/s (30.6 m^3/s) Aug. 13, gage height, 7.21 ft (2.198 m), no peak above base of 2,000 ft^3/s (57 m^3/s); minimum, 2.8 ft^3/s (0.079 m^3/s) July 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	149	77	66	42	45	18	9.3	13	712	36	38	26
2	132	81	65	39	43	19	12	11	733	75	18	79
3	124	78	66	41	43	25	13	14	740	49	13	60
4	103	82	64	42	44	31	10	107	742	113	13	44
5	92	81	62	43	45	36	9.4	82	755	71	20	57
6	78	72	62	43	47	33	11	48	788	46	18	382
7	69	66	59	42	46	35	15	358	732	27	21	477
8	65	64	55	44	47	30	15	192	718	19	26	446
9	62	62	49	45	47	19	12	114	685	14	153	279
10	64	57	49	45	45	30	17	73	597	158	168	202
11	62	54	49	45	44	24	18	45	528	230	112	165
12	59	51	49	44	44	18	12	27	441	169	231	144
13	60	48	49	44	42	16	14	17	408	175	744	124
14	58	45	49	43	38	23	20	12	169	94	648	111
15	53	44	49	43	31	30	17	11	96	51	427	99
16	47	50	48	43	36	30	22	10	62	34	286	84
17	46	57	48	46	27	30	20	15	47	23	302	79
18	46	59	49	48	28	25	19	21	33	24	388	73
19	47	65	49	50	33	21	19	20	26	18	272	76
20	47	65	48	51	33	19	26	14	23	14	265	73
21	48	64	48	52	34	18	29	14	24	15	261	66
22	48	62	48	52	39	20	23	13	29	8.8	185	69
23	48	59	48	52	39	21	20	12	24	10	136	69
24	47	57	48	52	39	16	24	7.8	20	6.7	107	68
25	52	62	47	53	37	11	31	9.3	15	4.0	71	68
26	62	65	47	52	34	14	18	10	61	4.1	60	62
27	64	65	46	51	31	14	16	7.8	99	3.0	49	58
28	59	66	45	48	27	14	25	6.7	56	4.9	38	56
29	59	67	45	47	---	12	19	6.0	36	155	35	63
30	66	67	45	46	---	11	15	226	33	139	31	64
31	74	---	43	46	---	10	---	602	---	77	29	---
TOTAL	2090	1892	1594	1434	1088	673	530.7	2118.6	9432	1867.5	5165	3723
MEAN	67.4	63.1	51.4	46.3	38.9	21.7	17.7	68.3	314	60.2	167	124
MAX	149	82	66	53	47	36	31	602	788	230	744	477
MIN	46	44	43	39	27	10	9.3	6.0	15	3.0	13	26
AC-FT	4150	3750	3160	2840	2160	1330	1050	4200	18710	3700	10240	7380

CAL YR 1980 TOTAL 59053.5 MEAN 161 MAX 1070 MIN 4.1 AC-FT 117100
WTR YR 1981 TOTAL 31607.8 MEAN 86.6 MAX 788 MIN 3.0 AC-FT 62690

PERIOD OF RECORD.--Water years 1937 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1937 to current year.
WATER TEMPERATURES: April 1949 to current year.
SUSPENDED SEDIMENT DISCHARGE: January 1949 to current year.
REMARKS.--Continuous water-temperature and specific conductance recorder since July 1981.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 28,800 micromhos June 24, 1977; minimum daily, 464 micromhos Sept. 23, 1974.
WATER TEMPERATURES: Maximum, 36.0°C July 27, 1966, July 25, 1969; minimum, 0.0°C on many days during winter months of most years.
SEDIMENT CONCENTRATIONS: Maximum daily, 21,300 mg/L Aug. 1, 1962; minimum daily, no flow on many days during July 1953, July and August 1954, July 1957, July to October 1964.
SEDIMENT LOADS: Maximum daily, 183,000 tons (166,000 tonnes) Sept. 26, 1955; minimum daily, 0 tons (0 tonnes) on many days during July 1953, July and August 1954, July 1957, July to October 1964.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 18,800 micromhos Mar. 27; minimum daily, 600 micromhos July 29.
WATER TEMPERATURES: Maximum, 35.5°C July 19, 20, 21, Aug. 2; minimum, 3.0°C Nov. 25, Dec. 22, Jan. 20.
SEDIMENT CONCENTRATIONS: Maximum daily, 13,800 mg/L Aug. 13; minimum daily, 4 mg/L Dec. 17, Feb. 17.
SEDIMENT LOADS: Maximum daily, 29,300 tons (26,600 tonnes) Aug. 13; minimum daily, 0.29 ton (0.26 tonne) Feb. 17.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
NOV											
19...	1100	65	9400	8.0	8.0	7.0	10.9	68	2400	2200	--
JAN											
30...	1430	46	9500	8.5	14.0	8.0	11.8	66	2400	2200	--
MAR											
19...	1400	30	13600	8.7	26.0	12.0	13.1	99	3500	--	3500
MAY											
27...	1225	19	15400	8.0	37.0	29.0	9.9	130	3300	--	3200
JUL											
23...	1330	9.3	11200	8.3	40.0	33.0	7.6	180	2500	--	2400
SEP											
16...	1400	86	6200	8.5	28.0	25.0	--	230	1700	--	1700

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
NOV											
19...	590	220	1200	11	13	180	1600	2200	.2	13	5950
JAN											
30...	580	240	1500	13	11	190	2000	2500	1.2	45	6990
MAR											
19...	300	680	2200	16	15	84	2600	3800	.8	1.8	9650
MAY											
27...	740	360	2500	19	1.3	120	2700	4300	.7	9.2	10700
JUL											
23...	590	240	1600	14	20	83	2100	3000	.7	11	7610
SEP											
16...	430	160	780	8.2	8.2	75	1400	1300	.7	8.4	4130

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV										
19...	1.1	1.1	.690	1.1	2.9	.080	.070	440	50	5.1
JAN										
30...	.53	.54	.490	1.2	2.2	.230	.040	600	70	16
MAR										
19...	.00	.00	.220	1.5	1.7	.130	.000	800	70	15
MAY										
27...	.02	.00	.100	1.3	1.4	.150	.070	1100	70	11
JUL										
23...	<.10	<.10	.190	1.5	1.7	.190	<.010	880	50	7.4
SEP										
16...	--	.16	--	--	--	--	<.010	390	70	8.4

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
NOV										
19...	1100	1	1	440	3	1	20	0	2	2
MAY										
27...	1225	2	2	1100	0	0	3	30	5	1

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV									
19...	50	6	4	.0	.0	2	2	30	40
MAY									
27...	70	4	2	.2	.0	2	2	60	20

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO-GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO-GEN,TOT IN BOT-TOM MA-TERIAL (MG/KG AS N) (00603)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)
MAY								
27...	1225	15	4.1	65	170	0	0	1

DATE	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)
MAY							
27...	0	3	430	5	250	.02	1

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
MAY									
27...	1225	< 270	1.8	< 130	2.9	< 130	2.8	.15	6.9

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)
MAY			
27...	1225	.00	.00

RIO GRANDE BASIN
08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued
WATER-QUALITY RECORDS

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV			
19...	1100	7	380
JAN			
30...	1430	4	32
MAR			
19...	1400	1	260
MAY			
27...	1225	21	10
JUL			
23...	1330	0	18
SEP			
16...	1400	230	140

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)
NOV								
19...	1100	65	7.0	57	10	--	--	--
MAR								
19...	1400	30	12.0	61	4.9	--	--	--
31...	1410	10	23.0	99	2.7	--	--	--
MAY								
07...	1012	392	18.0	4990	5280	48	69	97
30...	1536	430	23.0	3750	4350	35	50	84
31...	0812	576	22.0	3800	5910	33	49	82
JUN								
02...	1114	748	23.0	3400	6870	41	55	85
06...	1810	788	24.5	3130	6660	25	35	56
13...	1057	408	26.0	1550	1710	29	42	67
14...	0930	169	25.0	889	406	49	64	83
JUL								
10...	1130	301	23.5	4630	3760	50	66	81
10...	1851	219	28.5	7400	4380	57	77	96
30...	1639	136	30.0	9170	3370	69	82	100
AUG								
14...	1519	629	26.0	9400	16000	52	69	89
15...	1510	369	26.5	6440	6420	60	78	93
SEP								
07...	1838	487	21.0	3520	4630	45	61	84
10...	1419	317	24.0	1860	1590	58	73	94

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)
NOV							
19...	--	--	--	73	82	96	100
MAR							
19...	--	--	--	85	--	--	--
31...	--	--	--	70	75	96	100
MAY							
07...	100	--	--	--	--	--	--
30...	--	--	--	98	100	--	--
31...	--	--	--	98	100	--	--
JUN							
02...	--	--	--	98	100	--	--
06...	89	100	--	--	--	--	--
13...	--	--	--	89	99	100	--
14...	--	--	--	95	100	--	--
JUL							
10...	93	99	100	--	--	--	--
10...	100	--	--	--	--	--	--
30...	--	--	--	--	--	--	--
AUG							
14...	98	100	--	--	--	--	--
15...	--	--	--	98	100	--	--
SEP							
07...	--	--	--	95	100	--	--
10...	--	--	--	99	100	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4440	7820	9020	10100	10000	11700	16000	15400	4090	5770	4160	8350
2	4730	7480	8860	10200	10100	11800	16300	16000	3560	5800	4920	8360
3	4950	6580	8630	10200	10100	14700	16300	16500	3300	4060	6020	6160
4	5050	6670	8560	10200	10400	14700	16100	16600	3300	3990	7950	6180
5	5200	6500	8630	10300	10500	13200	16100	3590	3260	3990	10200	5180
6	6150	6580	8710	10200	10600	13300	16100	4530	3210	4510	12900	5180
7	6930	7030	8710	10300	10500	12000	16100	4410	3000	4490	10600	2450
8	7220	6980	8780	10300	10500	11900	16400	4350	3070	4510	10600	2450
9	7760	7170	9090	10300	10700	11400	16400	4510	3020	5710	9530	2650
10	8250	7650	9620	10300	10600	11300	16100	4760	3070	4040	3900	3310
11	8170	7880	9710	10300	10900	11500	16200	5260	3090	2600	2860	4060
12	8170	8190	9900	10200	10900	11500	16000	6110	3130	3120	3340	4320
13	8310	8520	9710	10300	10800	13100	16100	8220	3150	2850	3340	4340
14	8310	8520	9530	10300	10800	13100	16000	8140	3130	3370	1940	4870
15	8370	8810	9440	10200	10700	14200	16100	9180	3510	3290	1680	5260
16	9040	8810	9520	10300	10800	14100	15900	9180	3840	3280	1740	6110
17	9450	8970	9620	10300	11500	13000	16000	13800	4330	5430	2170	6540
18	9720	8150	9510	10100	11500	13000	15700	13800	4900	7210	2020	7230
19	9630	8290	9420	10100	12400	13200	15800	12100	6430	8560	2860	7670
20	9630	8970	9450	10000	12300	13200	16000	12400	6390	8210	2700	7820
21	9540	8000	9520	9900	11600	14000	16000	12400	8560	10000	2310	7950
22	9450	8000	9520	9900	11500	14000	15700	14800	8630	12700	2390	8350
23	9630	8120	9620	9900	11300	14000	15700	16400	8280	11200	2790	8350
24	9200	8120	9710	9810	11300	14000	15700	15500	8210	13400	3860	8230
25	9200	8060	10100	9450	11500	13600	15700	15600	9020	14700	4240	8230
26	8880	8060	10000	9450	11500	13600	15400	17300	4490	14700	4720	8160
27	8000	8460	10000	9280	11700	18800	15400	17300	4510	14900	6050	8430
28	7700	8460	10000	9450	11700	18600	15600	15500	4670	14600	6470	8430
29	7700	8970	10100	9630	---	16000	15600	15900	4670	1080	6820	9180
30	7760	9040	9980	9900	---	16000	16000	11400	4630	2940	10800	8630
31	7880	---	10000	10000	---	16000	---	11400	---	2870	10900	---
MEAN	7880	7960	9450	10000	11000	13700	16000	11400	4680	6710	5380	6410

WTR YR 1981 MEAN 9200 MAX 18800 MIN 1080

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1				---	---	---	4100	2800	3570	9300	8100	8580
2				---	---	---	4900	3100	4220	9300	7230	8430
3				---	---	---	3900	3200	3580	7040	5990	6450
4				---	---	---	5100	3900	4470	5930	4970	5330
5				---	---	---	---	5300	---	5050	4970	5010
6				---	---	---	---	---	---	5050	4780	4940
7				---	---	---	---	6100	---	4760	4170	4460
8				---	---	---	---	5200	---	4140	3660	3910
9				7500	7300	7410	---	2600	---	3630	3360	3520
10				9680	3640	6300	4500	3000	3330	3340	2910	3180
11				3390	2540	2790	3000	2600	2720	3070	2840	2950
12				3240	2990	3070	2900	1100	2030	3170	2930	3060
13				3310	2840	3080	2600	1100	1930	3420	3100	3250
14				2930	2750	2820	2300	2000	2120	3730	3380	3570
15				3730	2960	3330	2000	1800	1950	4210	3710	3990
16				4500	3710	4090	1900	1700	1760	4410	4160	4230
17				5600	4400	5000	1900	1600	1740	---	---	---
18				7700	5600	6630	1900	800	1730	---	---	---
19				8700	7800	8330	2700	800	2150	---	---	---
20				8600	7600	8090	3000	2700	2880	---	---	---
21				---	8400	---	2700	2300	2520	---	---	---
22				---	---	---	2300	2100	2210	---	---	---
23				---	---	---	3100	2200	2670	---	---	---
24				---	---	---	3700	3100	3430	---	---	---
25				---	---	---	4000	3500	3730	---	---	---
26				---	---	---	5100	3800	4340	---	---	---
27				---	---	---	6000	4800	5530	---	---	---
28				---	---	---	6400	4800	6000	---	---	---
29				---	600	---	7300	6300	6810	---	---	---
30				4600	2700	3230	7600	3400	5970	---	---	---
31				2900	2600	2740	8500	7400	7870	---	---	---
MONTH				9680	600	4780	8500	800	3510	9300	2840	4680
YEAR	9680	600	4160									

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

RIO GRANDE BASIN
08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued
WATER-QUALITY RECORDS

TEMPERATURE, WATER (DEG.°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	14.5	7.0	8.0	6.5	15.0	22.0	27.0	21.0	30.5	29.5	29.0
2	25.5	13.0	11.5	8.0	6.5	15.5	16.5	22.5	23.0	25.5	25.5	28.5
3	21.0	15.0	9.0	9.0	5.0	16.5	16.0	20.5	24.0	30.5	26.0	23.5
4	25.0	12.5	8.5	8.5	9.0	11.5	19.0	21.0	24.5	29.5	27.0	24.0
5	19.0	13.5	12.5	9.0	7.0	15.0	18.5	23.5	24.0	30.0	25.0	24.5
6	20.0	15.0	11.5	10.5	7.0	14.5	14.0	25.0	24.5	28.0	25.5	22.5
7	25.5	13.5	12.5	8.0	7.0	9.5	13.5	18.0	26.0	28.5	24.0	21.0
8	20.0	15.5	13.5	8.0	7.5	11.5	20.0	19.0	27.5	33.0	24.0	20.5
9	19.0	19.0	6.5	8.5	11.0	9.5	20.5	23.5	28.0	28.5	25.0	20.0
10	23.0	13.5	5.0	9.0	9.0	10.5	23.0	22.5	28.0	28.5	25.0	24.0
11	22.0	14.5	9.5	8.5	11.0	12.5	18.0	19.5	29.0	29.0	25.5	25.0
12	23.0	15.0	8.5	8.0	5.5	11.0	23.0	27.0	26.5	25.0	24.0	25.0
13	22.5	14.0	7.5	7.0	5.0	16.0	25.0	25.0	26.0	27.5	23.5	24.5
14	23.0	15.0	6.0	5.0	11.5	15.5	18.0	26.0	25.0	31.0	26.0	24.0
15	18.0	14.5	12.0	6.5	7.5	12.5	16.0	22.5	22.5	28.0	26.5	23.5
16	19.0	14.0	12.0	7.0	8.0	13.0	22.0	23.0	23.0	29.5	24.0	27.0
17	19.0	13.5	12.5	6.0	15.5	17.5	23.0	22.0	25.0	30.0	25.0	21.5
18	19.5	13.0	11.0	5.0	15.0	15.0	18.0	22.5	29.0	32.0	25.0	19.0
19	14.5	5.0	7.0	3.5	18.0	15.0	19.0	26.5	28.0	29.5	26.0	25.0
20	19.0	4.0	5.5	3.0	12.0	15.5	21.5	25.0	28.5	35.0	27.0	19.5
21	19.0	9.0	5.0	4.5	7.5	15.0	21.5	25.5	33.0	29.0	27.0	20.0
22	15.0	4.0	3.0	6.5	9.0	11.0	22.0	27.0	34.0	27.0	25.5	21.5
23	18.5	4.0	5.0	5.0	11.0	16.5	22.5	27.5	28.0	33.5	23.5	21.0
24	16.5	5.5	6.0	8.5	10.5	18.0	23.0	26.5	28.5	31.0	28.5	21.0
25	17.0	3.0	8.0	7.0	13.0	19.0	26.0	27.0	29.0	29.0	30.0	21.5
26	13.0	4.5	12.0	6.5	17.5	22.0	27.5	24.5	29.0	30.5	23.5	23.0
27	16.5	6.0	7.0	6.0	15.0	22.0	25.5	25.0	28.0	29.0	25.0	24.5
28	11.0	8.0	10.0	11.0	11.0	21.0	24.0	24.5	29.0	25.0	24.0	25.0
29	7.0	6.0	12.5	9.0	---	15.0	24.5	25.5	25.0	22.0	30.0	26.0
30	14.5	7.0	12.0	10.0	---	16.0	26.5	23.0	25.0	30.0	23.0	21.0
31	13.0	---	7.0	8.0	---	23.0	---	22.0	---	25.5	23.5	---
MEAN	18.5	11.0	9.0	7.5	10.0	15.0	21.0	24.0	26.5	29.0	25.5	23.0

WTR YR 1981 MEAN 18.5 MAX 35.0 MIN 3.0

WATER TEMPERATURE (DEG.°C), RECORDER MAXIMUM, AND MEAN, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1				---	---	---	33.0	25.0	28.5	25.5	21.5	23.5
2				---	---	---	35.5	24.0	29.5	29.0	21.0	24.5
3				---	---	---	31.0	26.5	28.5	30.0	22.5	26.0
4				---	---	---	32.0	25.0	28.5	24.5	21.5	23.0
5				---	---	---	34.0	24.5	29.0	22.5	21.5	22.0
6				---	---	---	34.0	24.5	29.0	23.5	20.5	22.0
7				---	---	---	26.5	23.0	25.0	23.0	21.5	22.5
8				---	---	---	30.0	21.5	25.5	21.5	20.5	21.0
9				29.5	25.5	27.5	28.0	22.5	25.5	20.5	20.0	20.5
10				28.0	22.5	25.5	28.5	24.0	26.5	22.0	20.0	21.0
11				29.5	25.0	27.0	26.0	23.0	24.5	23.5	21.5	22.5
12				29.0	24.5	27.0	26.0	22.5	24.0	24.5	22.5	23.5
13				30.0	25.0	27.5	24.0	22.5	23.5	25.5	23.5	24.5
14				31.5	24.5	28.0	24.5	21.5	24.0	25.5	23.5	24.5
15				33.5	25.0	28.5	25.5	24.0	25.0	25.0	23.0	24.0
16				32.5	24.0	28.0	27.0	23.5	25.0	23.5	22.0	23.0
17				32.5	24.0	27.5	27.5	24.0	25.5	---	---	---
18				34.5	24.0	29.0	27.0	24.5	25.5	---	---	---
19				35.5	24.5	29.5	27.5	24.0	26.0	---	---	---
20				35.5	24.5	30.0	27.5	23.5	25.5	---	---	---
21				35.5	24.5	29.5	27.5	23.5	25.5	---	---	---
22				34.5	22.5	28.0	28.0	23.0	25.5	---	---	---
23				34.5	23.0	27.5	29.0	22.5	26.0	---	---	---
24				34.5	23.0	27.5	29.5	23.0	26.0	---	---	---
25				34.0	21.5	27.0	31.0	22.5	26.5	---	---	---
26				34.0	22.5	27.5	31.5	22.5	27.0	---	---	---
27				33.0	23.0	27.0	31.5	23.5	27.0	---	---	---
28				28.5	22.5	25.0	31.5	22.5	26.5	---	---	---
29				27.5	21.0	24.5	32.0	22.5	26.5	---	---	---
30				30.0	25.0	27.5	32.5	22.5	27.0	---	---	---
31				32.0	25.0	28.0	32.0	22.5	26.5	---	---	---
MONTH				35.5	21.0	27.5	35.5	21.5	26.5	30.0	20.0	23.0
YEAR	35.5	20.0	26.0									

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	191	77	70	15	18	3.3	17	1.9	37	4.5	12	.58
2	191	68	21	4.6	15	2.7	24	2.5	73	8.5	20	1.0
3	175	59	28	5.9	11	2.0	21	2.3	11	1.3	10	.68
4	167	46	24	5.3	8	1.4	11	1.2	10	1.2	10	.84
5	99	25	38	8.3	12	2.0	12	1.4	5	.61	14	1.4
6	79	17	23	4.5	26	4.4	11	1.3	6	.76	11	.98
7	66	12	22	3.9	27	4.3	10	1.1	8	.99	11	1.0
8	27	4.7	22	3.8	33	4.9	10	1.2	10	1.3	7	.57
9	22	3.6	26	4.3	10	1.3	10	1.2	5	.63	14	.72
10	32	5.5	18	2.8	12	1.6	8	.97	6	.73	12	.97
11	34	5.7	18	2.6	20	2.6	49	6.0	10	1.2	6	.39
12	32	5.1	13	1.8	15	2.0	15	1.8	20	2.4	8	.39
13	40	6.5	16	2.1	15	2.0	35	4.2	17	1.9	14	.79
14	40	6.3	46	5.6	14	1.9	12	1.4	23	2.4	18	1.1
15	66	9.4	17	2.0	5	.66	32	3.7	7	.59	14	.95
16	36	4.6	38	5.1	5	.65	10	1.2	7	.68	13	.91
17	37	4.6	25	3.8	4	.52	12	1.5	4	.29	18	1.4
18	25	3.1	17	2.7	12	1.6	10	1.3	5	.38	16	1.2
19	20	2.5	35	6.1	23	3.0	80	11	11	.98	34	2.8
20	22	2.8	31	5.4	24	3.1	20	2.8	12	1.1	32	2.2
21	18	2.3	16	2.8	52	6.7	9	1.3	10	.92	107	6.1
22	17	2.2	41	6.8	129	17	8	1.1	9	.95	18	.97
23	20	2.6	17	2.7	32	4.1	12	1.7	12	1.3	22	1.2
24	14	1.8	46	7.1	23	3.0	11	1.5	10	1.1	19	1.0
25	27	3.8	16	2.7	22	2.8	10	1.4	10	1.0	20	1.0
26	14	2.3	14	2.5	30	3.8	10	1.4	10	.92	22	.83
27	23	4.0	17	3.0	24	3.0	15	2.1	9	.75	27	.95
28	19	3.0	19	3.4	69	8.4	8	1.0	10	.73	28	1.1
29	24	3.8	21	3.8	99	12	8	1.0	---	---	27	.87
30	20	3.6	48	8.8	26	3.2	12	1.5	---	---	57	1.7
31	21	4.2	---	---	13	1.5	10	1.2	---	---	93	2.5
TOTAL	---	402.0	---	139.2	---	111.43	---	65.17	---	40.11	---	39.09

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	44	1.1	29	1.0	5750	11100	144	14	2220	288	77	5.4
2	22	.71	25	.74	3400	6730	187	38	200	9.7	74	16
3	22	.77	29	1.1	2860	5710	1120	148	128	4.5	29	4.7
4	21	.57	27	7.8	3510	7030	408	124	127	4.5	290	34
5	19	.48	20	4.4	2580	5260	372	71	133	7.2	450	69
6	13	.39	14	1.8	3130	6660	1820	226	56	2.7	4000	6100
7	18	.73	4990	4820	2600	5140	1810	132	1360	77	4460	5740
8	22	.89	4960	2570	2390	4630	1280	66	2080	146	4140	4990
9	25	.81	3980	1230	2160	3990	155	5.9	5760	2970	2710	2040
10	39	1.8	1820	359	2090	3370	4630	1980	8490	3850	1920	1150
11	35	1.7	632	77	1850	2640	5430	3370	7720	2330	1310	672
12	23	.75	136	9.9	1790	2130	4850	2210	9630	6050	1050	451
13	19	.72	58	3.0	1550	1710	6140	2900	13800	29300	960	345
14	18	.97	60	2.3	889	406	4950	1260	10400	18200	525	206
15	17	.78	30	1.1	514	133	2820	388	7180	8280	347	128
16	42	2.5	34	1.2	299	50	2860	263	5300	4090	88	24
17	34	1.8	70	3.8	99	13	143	8.9	4180	3990	36	7.7
18	26	1.3	71	5.4	65	5.8	210	14	4970	6010	47	9.3
19	26	1.3	72	5.4	43	3.0	186	9.0	2000	1470	44	9.0
20	24	1.7	67	4.0	45	2.8	97	3.7	2300	1650	30	5.9
21	33	2.6	63	3.9	170	11	96	3.9	1650	1160	33	5.9
22	33	2.0	73	4.3	228	18	80	1.9	902	451	23	4.3
23	39	2.1	73	4.1	39	2.5	100	2.7	536	197	26	4.8
24	56	3.6	111	4.8	35	1.9	83	1.5	383	111	30	5.5
25	55	4.6	106	5.4	32	1.3	119	1.3	161	31	35	6.4
26	34	1.7	116	6.6	413	68	111	1.2	45	7.3	22	3.7
27	38	1.6	110	5.6	388	104	81	.66	32	4.2	24	3.8
28	29	2.0	64	3.1	198	30	65	.86	34	3.5	29	4.4
29	30	1.5	54	2.5	146	14	3900	1630	40	3.8	29	4.9
30	50	2.0	3750	2290	267	24	9870	3700	59	4.9	26	4.5
31	---	---	3800	6180	---	---	6360	1320	74	5.8	---	---
TOTAL	---	45.47	---	17619.24	---	66988.3	---	19895.52	---	90709.1	---	22055.2

TOTAL LOAD FOR YEAR: 218109.83 TONS.

08398500 RIO PENASCO AT DAYTON, NM

LOCATION.--Lat 32°44'36", long 104°24'49", in NE¼SE¼SE¼ sec.18, T.18 S., R.26 E., Eddy County, Hydrologic Unit 13060010, on left 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, 5.6 mi (9.0 km) upstream from mouth, and 7.0 mi (11.3 km) south of Artesia. Mouth at Pecos River mile 496.4 (798.7 km).

DRAINAGE AREA.--1,060 mi^2 (2,750 km^2), approximately.

PERIOD OF RECORD.--April 1951 to current year. Prior to October 1953, published as "near Dayton."

REVISED RECORDS.--WSP 1242: 1951(M). WSP 1512: 1956. WSP 1923: 1955.

GAGE.--Water-stage recorder and rock and concrete control. Datum of gage is 3,385.19 ft (1,031.806 m) National Geodetic Vertical Datum of 1929. Prior to May 9, 1968, at site 2.4 mi (3.9 km) downstream, at datum 44.30 ft (13.503 m) lower. May 9, 1968, to June 12, 1975, at present site at datum 1.98 ft (0.604 m) higher.

REMARKS.--Records poor. Diversions and ground-water withdrawals for irrigation of about 3,000 acres (12 km^2), 1959 determination, above station.

AVERAGE DISCHARGE.--30 years, 5.29 ft^3/s (0.150 m^3/s), 3,830 acre-ft/yr (4.72 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,800 ft^3/s (844 m^3/s) Aug. 23, 1966, gage height, 16.4 ft (5.00 m), from floodmarks, present site and datum, from rating curve extended above 6,000 ft^3/s (170 m^3/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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of about Sept. 22, 1941, reached a stage of about 9 ft (2.7 m) from floodmark, previous site and datum, discharge not determined. Peak discharge at discontinued station "near Dunken" (station 08397600), about 60 mi (100 km) upstream, was 70,000 ft^3/s (2,000 m^3/s), determined in 1956 from rating curve extended above a slope-area measurement of 36,300 ft^3/s (1,030 m^3/s) for peak of Oct. 6 or 7, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 1,030 ft^3/s (29.2 m^3/s) June 3, time unknown, gage height, 4.61 ft (1.405 m), no other peak above base of 750 ft^3/s (21 m^3/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.03	.00	.00	.00	.00	.00	.00	.00	129	.00	.00	.00
4	.02	.00	.00	.00	.00	.00	.00	.00	216	.00	.00	.00
5	.01	.00	.00	.00	.00	.00	.00	.00	1.4	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.17
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.70	.08
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.5	.00	.08
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.27	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.60	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.12	.00	.00	.00	.00	.00	.00	.00	346.40	8.50	1.57	.54
MEAN	.004	.000	.000	.000	.000	.000	.000	.000	11.5	.27	.051	.018
MAX	.03	.00	.00	.00	.00	.00	.00	.00	216	8.5	.70	.17
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.2	.00	.00	.00	.00	.00	.00	.00	687	17	3.1	1.1

CAL YR 1980 TOTAL 789.76 MEAN 2.16 MAX 455 MIN .00 AC-FT 1570
WTR YR 1981 TOTAL 357.13 MEAN .98 MAX 216 MIN .00 AC-FT 708

NOTE.--NO GAGE-HEIGHT RECORD JUNE 3-12.

08399500 PECOS RIVER (KAISER CHANNEL) NEAR LAKEWOOD, NM

LOCATION.--Lat 32°41'22", long 104°17'53", in NW¼SE¼ sec.5, T.19 S., R.27 E., Eddy County, Hydrologic Unit 13060011, on left bank 3.0 mi (4.8 km) upstream from high-water line of Lake McMillan, 6.0 mi (9.7 km) northeast of Lakewood, 7.0 mi (11.3 km) northeast of gates in McMillan Dam, 12 mi (19.3 km) southeast of Artesia, and at mile 492.1 (791.8 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) National Geodetic Vertical Survey of 1929 (Bureau of Reclamation bench mark). Prior to Mar. 23, 1955, at site 3.0 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.

REMARKS.--Records poor. Flow regulated by Santa Rosa Lake (station 08382810) since April 1980, by Lake Sumner (station 08384000) since August 1937, and by Two Rivers Reservoir (station 08390600) since July 1963. Diversions and ground-water withdrawals for irrigation of about 170,000 acres (690 km^2), 1959 determination, above station. Above about 1,500 ft^3/s (42 m^3/s) flow will begin bypassing station and, depending on the magnitude and duration of flow, may reach Lake McMillan (station 08400500). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--31 years, 149 ft^3/s (4.220 m^3/s), 108,000 acre-ft/yr (133 hm^3/yr).

EXTREMES FOR 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.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 765 ft^3/s (21.7 m^3/s) June 6; minimum daily, 6.0 ft^3/s (0.17 m^3/s) July 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	76	64	41	37	22	11	11	578	35	55	31
2	138	80	61	40	36	19	9.4	10	672	59	34	50
3	133	77	61	40	36	22	11	9.7	745	53	22	58
4	118	78	61	41	36	23	10	38	760	77	18	42
5	105	78	58	41	36	27	9.2	60	762	69	20	43
6	92	73	58	41	36	27	9.2	36	765	54	24	226
7	84	68	59	41	36	26	10	194	720	38	20	352
8	81	65	58	41	36	28	12	147	725	28	35	445
9	76	65	51	41	36	22	12	91	651	25	82	303
10	74	60	51	41	35	21	11	61	613	81	174	210
11	73	58	51	41	34	25	13	42	626	198	130	190
12	68	56	51	41	33	20	14	32	504	160	200	160
13	71	54	50	41	33	16	12	24	490	170	677	140
14	69	50	49	41	33	16	13	21	250	90	625	95
15	66	47	49	41	28	22	16	19	101	50	358	86
16	61	51	49	41	28	26	14	18	73	31	349	77
17	60	56	49	42	27	25	17	18	54	27	239	68
18	59	57	49	43	25	23	16	22	39	23	450	65
19	59	61	49	44	26	22	14	25	32	15	266	63
20	59	65	49	44	26	20	15	23	26	17	262	62
21	59	64	49	44	26	19	17	21	22	18	242	58
22	58	62	48	44	29	18	18	20	24	17	172	56
23	57	61	47	45	30	19	16	20	24	13	174	60
24	57	59	47	45	30	19	16	18	22	10	89	57
25	59	60	47	45	30	18	20	18	21	8.0	63	56
26	62	62	46	45	30	12	19	17	20	7.0	49	53
27	68	62	45	45	27	14	16	17	76	6.5	45	49
28	65	63	45	45	25	14	17	14	51	6.0	38	49
29	63	63	45	42	---	13	18	14	44	260	35	52
30	65	62	44	39	---	12	14	74	40	140	34	56
31	71	---	42	38	---	10	---	408	---	85	30	---
TOTAL	2384	1893	1582	1304	880	620	419.8	1542.7	9530	1870.5	5011	3312
MEAN	76.9	63.1	51.0	42.1	31.4	20.0	14.0	49.8	318	60.3	162	110
MAX	154	80	64	45	37	28	20	408	765	260	677	445
MIN	57	47	42	38	25	10	9.2	9.7	20	6.0	18	31
AC-FT	4730	3750	3140	2590	1750	1230	833	3060	18900	3710	9940	6570

CAL YR 1980 TOTAL 58263.6 MEAN 159 MAX 900 MIN 1.1 AC-FT 115600
WTR YR 1981 TOTAL 30349.0 MEAN 83.1 MAX 765 MIN 6.0 AC-FT 60200

08400000 FOURMILE DRAW NEAR LAKEWOOD, NM

LOCATION.--Lat 32°40'20", long 104°22'07", in SW¼NW¼SE¼ sec.10, T.19 S., R.26 E., Eddy County, Hydrologic Unit 13060011, 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, 3.8 mi (6.1 km) upstream from mouth, and 11.5 mi (18.5 km) south of Artesia. Mouth at Pecos River mile 490.6 (789.4 km).
DRAINAGE AREA.--265 mi^2 (686 km^2), approximately.
PERIOD OF RECORD.--October 1951 to current year.
REVISED RECORDS.--WRD 1968: 1967.
GAGE.--Water-stage recorder. Datum of gage is 3,299.14 ft (1,005.578 m) National Geodetic Vertical Datum of 1929. 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.
REMARKS.--Records good. No surface diversions above station.
AVERAGE DISCHARGE.--30 years, 3.66 ft^3/s (0.104 m^3/s), 2,650 acre-ft/yr (3.27 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,300 ft^3/s (830 m^3/s) Aug. 23, 1966, gage height, 19.9 ft (6.07 m), from floodmarks present datum, from rating curve extended above 5,000 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.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8.4 ft^3/s (0.24 m^3/s) Sept. 4, gage height, 0.90 ft (0.274 m), no peak above base of 200 ft^3/s (5.7 m^3/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.63
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.96
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.18	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.14	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.14	.18	.00	3.60
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.005	.006	.000	.12
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.14	.18	.00	1.0
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.3	.4	.00	7.1

CAL YR 1980 TOTAL 101.44 MEAN .28 MAX 70 MIN .00 AC-FT 201
WTR YR 1981 TOTAL 3.92 MEAN .011 MAX 1.0 MIN .00 AC-FT 7.8

08400500 LAKE MCMILLAN NEAR LAKEWOOD, NM

LOCATION.--Lat 32°35'42", long 104°20'49", in NE¼NE¼ sec.11, T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, near outlet gates of McMillan Dam on Pecos River, 3.4 mi (5.5 km) southeast of Lakewood, and at mile 484.3 (779.2 km).
DRAINAGE AREA.--16,990 mi^2 (44,000 km^2), approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1939 to September 1965 (monthend gage heights and contents), October 1965 to current year. Monthend gage heights January 1918 to December 1938 in files of Pecos River Commission.
GAGE.--Nonrecording gage. Datum of gage is 3,241.6 ft (988.04 m) Bureau of Reclamation datum.
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 hm^3) between gage heights 0.0 ft (sill of outlet gate) and 24.9 ft (7.59 m), crest of spillway No. 2. Flashboards in spillway No. 2 may be used to increase this capacity. Maximum capacity without spill, 33,620 acre-ft (41.5 hm^3) at gage height 26.1 ft (7.96 m) crest of spillway No. 1. No dead storage. No storage allocated to flood control. Figures given herein represent usable contents. 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 (based on August 1964 survey) furnished by Carlsbad Irrigation District.
EXTREMES FOR PERIOD OF RECORD (SINCE 1938).--Maximum contents observed, 68,500 acre-ft (84.5 hm^3) Sept. 26, 1941, gage height, 29.95 ft (9.129 m); no storage for periods in 1944-54, 1957, 1964, 1965, 1974, 1976, 1977.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 24,380 acre-ft (30.1 hm^3) Jan 19 to Feb. 3, gage height, 24.30 ft (7.407 m); minimum, 4,020 acre-ft (4.96 hm^3) May 30, gage height 17.85 ft (5.441 m).

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23670	22060	23670	24140	24380	23670	21180	10880	5190	10880	5190	12820
2	23670	22060	23670	24140	24380	23670	21180	10740	6080	10460	5300	12660
3	23900	22060	23670	24140	24380	23440	20960	10600	7240	10040	5300	12360
4	23900	22060	23900	24140	24140	23440	20740	10460	8720	9760	5190	11910
5	23900	22060	23900	24140	24140	23210	20530	10460	9240	9630	5190	11610
6	23900	22060	23900	24140	24140	23210	20530	10600	10320	9500	5190	11610
7	23900	22290	23900	24140	24140	22980	20320	10460	11460	9370	5080	11910
8	23900	22290	24140	24140	24140	22980	19690	10880	12510	9110	5080	13140
9	23900	22520	24140	24140	24140	22980	19280	11160	13460	8980	5190	13780
10	23900	22520	24140	24140	24140	22980	18480	11310	14280	9110	5190	14110
11	23900	22520	24140	24140	24140	22980	17690	11310	14960	9110	5410	14110
12	23900	22520	24140	24140	23900	22980	16740	11310	15660	9370	5740	14280
13	23670	22750	24140	24140	23900	22980	16020	11160	16020	9760	6080	14450
14	23670	22750	24140	24140	23900	22750	15130	10880	16560	10040	7360	14620
15	23670	22750	24140	24140	23900	22750	14790	10460	16930	10180	8590	14620
16	23670	22980	24140	24140	23900	22750	14620	10040	16740	10180	9240	14790
17	23670	22980	24140	24140	23900	22750	14450	9630	16380	10040	9630	14620
18	23440	22980	24140	24140	23900	22520	14280	9240	16020	10040	10600	14280
19	23440	22980	24140	24380	23900	22520	14110	8850	15480	10040	11310	13940
20	23440	22980	24140	24380	23900	22520	13940	8330	14960	9900	11760	13620
21	23210	22980	24140	24380	23900	22290	13780	7840	14450	9630	12210	13140
22	23210	22980	24140	24380	23670	22060	13300	7480	14280	9240	12660	13140
23	23210	22980	24140	24380	23670	22060	12820	7000	13940	8720	12820	12820
24	23210	22980	24140	24380	23670	22060	12510	6420	13460	8200	12950	12510
25	22980	22980	24140	24380	23670	22060	12210	5960	13140	7720	13140	12210
26	22750	23210	24140	24380	23440	21840	11910	5520	12660	7240	13140	11910
27	22520	23210	24140	24380	23440	21840	11610	5080	12210	6540	13140	11760
28	22290	23440	24140	24380	23440	21620	11460	4640	11910	5960	13140	11460
29	22060	23670	24140	24380	---	21400	11160	4220	11610	5300	13140	11310
30	21840	23670	24140	24380	---	21400	11020	4020	11160	5190	12980	11460
31	21840	---	24140	24380	---	21180	---	4220	---	5190	12980	---
MAX	23900	23670	24140	24380	24380	23670	21180	11310	16930	10880	13140	14790
MIN	21840	22060	23670	24140	23440	21180	11020	4020	5190	5190	5080	11310
(±)	-1600	+1830	+470	+240	-940	-2260	-10160	-6800	+6940	-5970	+7790	-1520

CAL YR 1980 MAX 24140 MIN 2480 (±) +11480
WTR YR 1981 MAX 24380 MIN 4020 (±) -11980

(±) CHANGE IN CONTENTS IN ACRE-FEET.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.15	23.80	24.15	24.25	24.30	24.15	23.60	20.70	18.40	20.70	18.40	21.35
2	24.15	23.80	24.15	24.25	24.30	24.15	23.60	20.65	18.80	20.55	18.45	21.30
3	24.20	23.80	24.15	24.25	24.30	24.10	23.55	20.60	19.30	20.40	18.45	21.20
4	24.20	23.80	24.20	24.25	24.25	24.10	23.50	20.55	19.90	20.30	18.40	21.05
5	24.20	23.80	24.20	24.25	24.25	24.05	23.45	20.55	20.10	20.25	18.40	20.95
6	24.20	23.80	24.20	24.25	24.25	24.05	23.45	20.60	20.50	20.20	18.40	20.95
7	24.20	23.85	24.20	24.25	24.25	24.00	23.40	20.55	20.90	20.15	18.35	21.05
8	24.20	23.85	24.25	24.25	24.25	24.00	23.25	20.70	21.25	20.05	18.35	21.45
9	24.20	23.90	24.25	24.25	24.25	24.00	23.15	20.80	21.55	20.00	18.40	21.65
10	24.20	23.90	24.25	24.25	24.25	24.00	22.95	20.85	21.80	20.05	18.40	21.75
11	24.20	23.90	24.25	24.25	24.25	24.00	22.75	20.85	22.00	20.05	18.50	21.75
12	24.20	23.90	24.25	24.25	24.20	24.00	22.50	20.85	22.20	20.15	18.65	21.80
13	24.15	23.95	24.25	24.25	24.20	24.00	22.30	20.80	22.30	20.30	18.80	21.85
14	24.15	23.95	24.25	24.25	24.20	23.95	22.05	20.70	22.45	20.40	19.35	21.90
15	24.15	23.95	24.25	24.25	24.20	23.95	21.95	20.55	22.55	20.45	19.85	21.90
16	24.15	24.00	24.25	24.25	24.20	23.95	21.90	20.40	22.50	20.45	20.10	21.95
17	24.15	24.00	24.25	24.25	24.20	23.95	21.85	20.25	22.40	20.40	20.25	21.90
18	24.10	24.00	24.25	24.25	24.20	23.90	21.80	20.10	22.30	20.40	20.60	21.80
19	24.10	24.00	24.25	24.30	24.20	23.90	21.75	19.95	22.15	20.40	20.85	21.70
20	24.10	24.00	24.25	24.30	24.20	23.90	21.70	19.75	22.00	20.35	21.00	21.60
21	24.05	24.00	24.25	24.30	24.20	23.85	21.65	19.55	21.85	20.25	21.15	21.45
22	24.05	24.00	24.25	24.30	24.15	23.80	21.50	19.40	21.80	20.10	21.30	21.45
23	24.05	24.00	24.25	24.30	24.15	23.80	21.35	19.20	21.70	19.90	21.35	21.35
24	24.05	24.00	24.25	24.30	24.15	23.80	21.25	18.95	21.55	19.70	21.40	21.25
25	24.00	24.00	24.25	24.30	24.15	23.80	21.15	18.75	21.45	19.50	21.45	21.15
26	23.95	24.05	24.25	24.30	24.10	23.75	21.05	18.55	21.30	19.30	21.45	21.05
27	23.90	24.05	24.25	24.30	24.10	23.75	20.95	18.35	21.15	19.00	21.45	21.00
28	23.85	24.10	24.25	24.30	24.10	23.70	20.90	18.15	21.05	18.75	21.45	20.90
29	23.80	24.15	24.25	24.30	---	23.65	20.80	17.95	20.95	18.45	21.45	20.85
30	23.75	24.15	24.25	24.30	---	23.65	20.75	17.85	20.85	18.40	21.40	20.90
31	23.75	---	24.25	24.30	---	23.65	---	17.95	---	18.40	21.40	---
MEAN	24.08	23.95	24.23	24.27	24.21	23.91	22.19	19.85	21.30	19.93	19.91	21.41
MAX	24.20	24.15	24.25	24.30	24.30	24.15	23.60	20.85	22.55	20.70	21.45	21.95
MIN	23.75	23.80	24.15	24.25	24.10	23.65	20.75	17.85	18.40	18.40	18.35	20.85

CAL YR 1980 MEAN 22.17 MAX 24.25 MIN 17.05
WTR YR 1981 MEAN 22.42 MAX 24.30 MIN 17.85

08401000 PECOS RIVER BELOW MCMILLAN DAM, NM

LOCATION.--Lat 32°35'40", long 104°20'59", in NW¼NE¼ sec.11, T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, 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 484.1 (778.9 km).

DRAINAGE AREA.--16,990 mi^2 (44,000 km^2), 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, and 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.

REVISED RECORDS.--WSP 1512: 1909.

GAGE.--Water-stage recorder and rock control. Datum of gage is 3,238.21 ft (987.006 m) National Geodetic Vertical Datum of 1929. 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.

REMARKS.--Records good. Flow completely regulated by Lake McMillan (station 08400500) since 1893. Flow also regulated by several other reservoirs. Diversions and ground-water withdrawals for irrigation of about 171,000 acres (690 km^2), 1959 determination, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--36 years (1907, 1940, 1948-81), 96.4 ft^3/s (2.730 m^3/s), 69,840 acre-ft/yr (86.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,500 ft^3/s (467 m^3/s) Aug. 23, 1966, includes flow of spillways; no flow many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 2, 1904, may have reached 60,000 ft^3/s (1,700 m^3/s). The flood of Aug. 3, 1893, damaged McMillan Dam, then under construction, and destroyed Avalon Dam; this flood was described as "highest in 50 years" at Carlsbad.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 290 ft^3/s (8.21 m^3/s) April 10; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.05	.00	.00	.00	.00	.00	62	1.3	184	1.1	68
2	.09	.04	.00	.00	.00	.00	.00	62	1.1	184	1.1	115
3	.09	.04	.00	.00	.00	.00	.00	53	.96	164	.96	185
4	.07	.03	.00	.00	.00	.00	.00	.25	31	99	.94	199
5	.05	.01	.00	.00	.00	.00	.00	.18	59	94	.76	150
6	.05	.01	.00	.00	.00	.00	44	23	59	65	.60	54
7	.02	.00	.00	.00	.00	.00	117	82	66	65	.46	55
8	.00	.00	.00	.00	.00	.00	147	.33	109	64	.44	55
9	.00	.00	.00	.00	.00	.00	198	.20	143	31	.43	55
10	.00	.00	.00	.00	.00	.00	290	.04	145	5.2	.43	130
11	.00	.00	.00	.00	.00	.00	289	.00	145	5.0	.38	170
12	.00	.00	.00	.00	.00	.00	289	34	121	5.2	.44	.52
13	.00	.00	.00	.00	.00	.00	288	93	81	5.4	.44	.52
14	.00	.00	.00	.00	.00	.00	168	107	67	5.6	.51	.52
15	.00	.00	.00	.00	.00	.00	63	149	67	5.6	.52	.52
16	.00	.00	.00	.00	.00	.00	62	147	66	6.0	.52	26
17	.00	.00	.00	.00	.00	.00	63	122	75	6.3	.52	120
18	.00	.00	.00	.00	.00	.00	62	152	116	6.5	.52	198
19	.00	.00	.00	.00	.00	.00	63	179	155	6.7	.36	200
20	.00	.00	.00	.00	.00	.00	63	178	154	49	.27	160
21	.00	.00	.00	.00	.00	.00	124	178	118	105	.27	125
22	.00	.00	.00	.00	.00	.00	180	179	97	151	.27	160
23	.00	.00	.00	.00	.00	.00	138	201	97	181	.27	185
24	29	.00	.00	.00	.00	.00	106	216	136	179	.27	200
25	100	.00	.00	.00	.00	.00	106	189	150	178	.27	197
26	100	.00	.00	.00	.00	.00	105	177	149	191	.27	115
27	100	.00	.00	.00	.00	.00	104	176	148	248	.27	115
28	100	.00	.00	.00	.00	.00	94	156	156	246	.27	80
29	68	.00	.00	.00	---	.00	62	115	185	184	.22	1.0
30	.12	.00	.00	.00	---	.00	62	1.8	185	124	.22	58
31	.05	---	.00	.00	---	.00	---	1.6	---	59	6.2	---
TOTAL	497.63	.18	.00	.00	.00	.00	3287.00	3034.40	3083.36	2902.5	20.50	3178.08
MEAN	16.1	.006	.000	.000	.000	.000	110	97.9	103	93.6	.66	106
MAX	100	.05	.00	.00	.00	.00	290	216	185	248	6.2	200
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.96	5.0	.22	.52
AC-FT	987	.4	.00	.00	.00	.00	6520	6020	6120	5760	41	6300

CAL YR 1980 TOTAL 30891.76 MEAN 84.4 MAX 475 MIN .00 AC-FT 61270
WTR YR 1981 TOTAL 16003.65 MEAN 43.8 MAX 290 MIN .00 AC-FT 31740

08401100 PECOS RIVER ABOVE SEVEN RIVERS, NEAR LAKEWOOD, NM

LOCATION.--Lat 32°34'42", long 104°22'42", in NE¼NE¼NE¼ sec.16. T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on right bank, 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 481.4 (774.6 km).
DRAINAGE AREA.--17,000 mi^2 (44,030 km^2), approximately (contributing area).
PERIOD OF RECORD.--May 1974 to current year (operated as a low-flow station only).
GAGE.--Water-stage recorder. Datum of gage is 3,213.52 ft (979.481 m) National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).
REMARKS.--Records fair. Flow regulated by Lake McMillan (station 08400500) since 1893, and by several other reservoirs. Diversions and ground-water withdrawals for irrigation of about 171,000 acres (690 km^2), 1959 determination, above station. Several observations of water temperature were made during the year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge determined, 2,080 ft^3/s (58.9 m^3/s) Oct. 26, 1974; no flow at times each year.
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 303 ft^3/s (8.58 m^3/s) April 11-13; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	60	.00	179	.60	65
2	.00	.00	.00	.00	.00	.00	.00	60	.00	179	.00	106
3	.00	.00	.00	.00	.00	.00	.00	57	.00	166	.00	179
4	.00	.00	.00	.00	.00	.00	.00	1.4	17	92	.00	202
5	.00	.00	.00	.00	.00	.00	.00	.00	54	90	.00	141
6	.00	.00	.00	.00	.00	.00	20	8.0	54	58	.00	51
7	.00	.00	.00	.00	.00	.00	119	91	57	57	.00	52
8	.00	.00	.00	.00	.00	.00	154	1.6	99	57	.00	52
9	.00	.00	.00	.00	.00	.00	206	.00	140	43	.00	51
10	.00	.00	.00	.00	.00	.00	271	.00	140	2.1	.00	122
11	.00	.00	.00	.00	.00	.00	303	.00	140	1.9	.00	196
12	.00	.00	.00	.00	.00	.00	303	15	115	1.8	.00	.76
13	.00	.00	.00	.00	.00	.00	303	90	77	1.8	.00	.00
14	.00	.00	.00	.00	.00	.00	162	95	58	1.9	.00	.00
15	.00	.00	.00	.00	.00	.00	62	150	58	2.2	.00	.00
16	.00	.00	.00	.00	.00	.00	60	150	57	2.0	.00	11
17	.00	.00	.00	.00	.00	.00	60	122	63	2.0	.00	118
18	.00	.00	.00	.00	.00	.00	60	154	106	2.1	1.3	191
19	.00	.00	.00	.00	.00	.00	62	191	150	2.2	.00	195
20	.00	.00	.00	.00	.00	.00	62	187	147	37	.00	140
21	.00	.00	.00	.00	.00	.00	126	187	109	109	.00	106
22	.00	.00	.00	.00	.00	.00	187	191	87	158	.00	143
23	.00	.00	.00	.00	.00	.00	143	209	86	195	.00	170
24	19	.00	.00	.00	.00	.00	106	227	122	195	.00	195
25	122	.00	.00	.00	.00	.00	107	204	140	191	.00	191
26	122	.00	.00	.00	.00	.00	106	187	136	206	.00	104
27	122	.00	.00	.00	.00	.00	106	187	136	277	.00	104
28	122	.00	.00	.00	.00	.00	95	166	140	277	.00	74
29	86	.00	.00	.00	---	.00	60	137	177	209	.00	2.0
30	.64	.00	.00	.00	---	.00	60	.70	179	140	.00	52
31	.00	---	.00	.00	---	.00	---	.00	---	75	2.8	---
TOTAL	593.64	.00	.00	.00	.00	.00	3303.00	3128.70	2844.00	3010.0	4.70	3013.76
MEAN	19.1	.000	.000	.000	.000	.000	110	101	94.8	97.1	.15	100
MAX	122	.00	.00	.00	.00	.00	303	227	179	277	2.8	202
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.8	.00	.00
AC-FT	1180	.00	.00	.00	.00	.00	6550	6210	5640	5970	9.3	5980

CAL YR 1980 TOTAL 31716.43 MEAN 86.7 MAX 491 MIN .00 AC-FT 62910
WTR YR 1981 TOTAL 15897.80 MEAN 43.6 MAX 303 MIN .00 AC-FT 31530

08401200 SOUTH SEVEN RIVERS NEAR LAKEWOOD, NM

LOCATION.--Lat 32°35'19", long 104°25'17", in SE¼SE¼NW¼ sec.7, T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on downstream side of center pier of bridge on U.S. Highway 285, 0.4 mi (0.6 km) south of Seven Rivers, 2.6 mi (4.2 km) upstream from mouth, and 4.0 mi (6.4 km) southwest of Lakewood. Mouth at Pecos River mile 480.9 (773.8 km).
DRAINAGE AREA.--220 mi^2 (570 km^2), 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 0.52 ft (0.158 m), corrected, higher.
REMARKS.--Records poor. No surface diversions above station, ground-water withdrawals for 240 acres (97.1 hm^2), above station. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--18 years, 4.39 ft^3/s (0.124 m^3/s), 3,180 acre-ft/yr (3.92 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,500 ft^3/s (722 m^3/s) May 30, 1965, gage height, 20.0 ft (6.10 m), from floodmarks, present site and datum, from rating curve extended above 5,700 ft^3/s (161 m^3/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.
EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1941, about 30,000 ft^3/s (850 m^3/s), gage height, 22.8 ft (6.95 m), from old debris on left bank, former site and datum, from rating curve extended above 5,700 ft^3/s (161 m^3/s) on basis of slope-area measurement at gage height 21.8 ft (6.64 m). Probable date of flood, Oct. 7, 1954.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 561 ft^3/s (15.9 m^3/s) at 0900 hours, July 9, gage height, 7.36 ft (2.243 m), no other peak above base of 450 ft^3/s (13 m^3/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	3.2	.00	.00	3.7
5	.00	.00	.00	.00	.00	.00	.00	.00	.20	.00	.00	.22
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	60	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	21	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	1.9	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	22.90	3.40	60.02	.00	3.92
MEAN	.000	.000	.000	.000	.000	.000	.000	.74	.11	1.94	.000	.13
MAX	.00	.00	.00	.00	.00	.00	.00	21	3.2	60	.00	3.7
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	45	6.7	119	.00	7.8

CAL YR 1980 TOTAL 54.70 MEAN .15 MAX 27 MIN .00 AC-FT 108
WTR YR 1981 TOTAL 90.24 MEAN .25 MAX 60 MIN .00 AC-FT 179

08401500 PECOS RIVER BELOW MAJOR JOHNSON SPRINGS NEAR CARLSBAD, NM

LOCATION.--Lat 32°31'54", long 104°22'40", in SW¼NW¼NW¼ sec. 27, T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, 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 478.6 (770.1 km).
DRAINAGE AREA.--17,650 mi^2 (45,710 km^2), approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1947 to September 1950, October 1971 to current year (operated as a low-flow station only). Records prior to October 1971 not equivalent due to spring inflow between sites.
GAGE.--Water-stage recorder. Datum of gage is 3,198.44 ft (974.885 m) National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to October 1971 at site 0.5 mi (0.8 km) upstream at different datum.
REMARKS.--Water-discharge records good. Flow regulated by Lake McMillan (station 08400500) since 1893, and by several other reserviors. Diversions and ground-water withdrawal for irrigation of about 173,000 acres (700 km^2), 1959 determination, above station.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,160 ft^3/s (118 m^3/s) Sept 15, 1949, July 24, 1950, from rating curve extended above 780 ft^3/s (22 m^3/s); maximum gage height 5.38 ft (1.640 m) Sept 15, 1949, site and datum then in use; minimum discharge, 7.0 ft^3/s (0.198 m^3/s) July 20, 1977, Aug. 12, 1981.
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 331 ft^3/s (9.37 m^3/s) Apr. 12, 13; minimum, 7.0 ft^3/s (0.198 m^3/s) Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	50	35	41	42	33	32	87	23	227	30	71
2	46	50	35	41	42	33	30	87	23	226	27	123
3	46	48	35	42	42	33	29	86	22	215	26	188
4	48	46	35	42	42	33	28	34	29	132	25	211
5	48	46	36	44	40	32	27	28	71	130	17	170
6	48	45	36	44	40	32	40	28	71	94	11	60
7	48	44	36	44	40	32	128	117	72	92	11	56
8	48	42	36	44	39	32	168	36	118	91	9.8	56
9	48	42	36	44	38	31	206	27	164	275	8.5	56
10	48	40	36	43	38	31	329	26	168	40	8.0	90
11	48	40	36	43	38	31	327	26	171	35	8.1	175
12	48	40	36	43	38	31	331	30	151	34	8.2	35
13	48	40	36	44	37	31	331	114	110	33	8.2	32
14	50	40	36	45	36	31	231	120	89	33	8.2	31
15	50	40	36	44	36	31	84	175	90	35	8.2	30
16	50	39	36	44	36	31	83	174	90	33	8.0	30
17	50	38	36	44	36	31	82	150	94	33	15	134
18	52	38	36	44	36	31	83	178	139	33	27	214
19	52	38	37	44	35	31	82	214	190	33	20	219
20	54	36	38	44	34	31	83	213	191	54	18	179
21	54	36	39	44	34	32	131	213	160	132	19	137
22	54	34	39	44	34	32	205	213	129	184	20	167
23	56	35	39	44	34	32	178	232	128	226	21	194
24	57	35	39	44	33	32	132	250	163	226	24	216
25	169	36	40	44	33	33	132	227	186	224	26	224
26	174	36	40	44	33	33	133	207	185	229	27	136
27	174	36	40	44	33	33	132	206	184	304	27	134
28	174	36	40	43	33	32	130	187	178	304	27	113
29	163	36	41	43	---	32	87	165	200	251	26	39
30	58	35	41	43	---	32	87	39	225	165	26	74
31	54	---	41	43	---	33	---	25	---	120	26	---
TOTAL	2163	1197	1158	1348	1032	988	4081	3914	3814	4243	571.2	3594
MEAN	69.8	39.9	37.4	43.5	36.9	31.9	136	126	127	137	18.4	120
MAX	174	50	41	45	42	33	331	250	225	304	30	224
MIN	46	34	35	41	33	31	27	25	22	33	8.0	30
AC-FT	4290	2370	2300	2670	2050	1960	8090	7760	7570	8420	1130	7130

CAL YR 1980 TOTAL 44427.0 MEAN 121 MAX 490 MIN 29 AC-FT 88120
WTR YR 1981 TOTAL 28103.2 MEAN 77.0 MAX 331 MIN 8.0 AC-FT 55740

08401500 PECOS RIVER BELOW MAJOR JOHNSON SPRINGS NEAR CARLSBAD, NM--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960, 1962, 1978-79, 1981.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
FEB											
23...	1430	33	5260	7.9	24.0	19.0	2000	1800	--	550	140
APR											
30...	1300	86	6750	7.7	--	23.0	--	--	--	--	--
MAY											
29...	1030	168	8700	8.2	27.5	22.5	2300	--	2200	580	200
JUN											
29...	1325	162	4870	7.5	--	28.0	--	--	--	--	--
AUG											
27...	1200	25	5100	7.8	--	23.5	2000	--	1800	550	140
SEP											
29...	1210	34	4830	7.4	29.5	21.5	--	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
FEB											
23...	500	4.9	5.1	130	1600	890	.3	20	3780	260	40
APR											
30...	--	--	--	--	--	--	--	--	--	--	--
MAY											
29...	1100	10	88	84	2000	2000	.7	9.7	6030	440	70
JUN											
29...	--	--	--	--	--	--	--	--	--	--	--
AUG											
27...	490	4.8	5.7	140	1700	850	.7	15	3840	580	40
SEP											
29...	--	--	--	--	--	--	--	--	--	--	--

08401900 ROCKY ARROYO AT HIGHWAY BRIDGE, NEAR CARLSBAD, NM

LOCATION.--Lat 32°30'23", long 104°22'28", in SE¼SE¼ sec.3, T.21 S., R.25 E., Eddy County, Hydrologic Unit 13060011, at downstream end of bridge pier nearest left bank on U.S. Highway 285, 2.1 mi (3.4 km) upstream from mouth and 10 mi (16.1 km) northwest of Carlsbad. Mouth at Pecos River mile 475.2 (764.6 km).
DRAINAGE AREA.--285 mi (738 km^2), approximately.
PERIOD OF RECORD.--October 1963 to current year.
GAGE.--Water-stage recorder. Altitude of gage is 3,250 ft (991 m), from topographic map.
REMARKS.--Records good. Diversions for irrigation of 220 acres (89.0 hm^2), above station. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--18 years, 8.54 ft^3/s (0.242 m^3/s), 6,190 acre-ft/yr (7.63 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,600 ft^3/s (895 m^3/s) Aug. 23, 1966, gage height, 15.35 ft, (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.
EXTREMES OUTSIDE PERIOD OF RECORD.--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 (5.85 m), from highwater marks on downstream end of bridge pier, by slope-area measurement at site 5 mi (8.0 km) upstream.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,830 ft^3/s (80.1 m^3/s) at 0800 hours July 9, gage height 8.20 ft (2.499 m), no other peak above base of 1,000 ft^3/s (28 m^3/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	13
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	366	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.3	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	370.30	.00	13.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	11.9	.000	.43
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	366	.00	13
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	734	.00	26

CAL YR 1980 TOTAL 709.88 MEAN 1.94 MAX 618 MIN .00 AC-FT 1410
WTR YR 1981 TOTAL 383.30 MEAN 1.05 MAX 366 MIN .00 AC-FT 760

08402000 PECOS RIVER AT DAMSITE 3, NEAR CARLSBAD, NM

LOCATION.--Lat 32°30'40", long 104°19'58", in lot 14, sec.6, T.21 S., R.26 E., Eddy County, Hydrologic Unit 13060011, 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, 8.0 mi (12.9 km) northwest of Carlsbad, and at mile 473.8 (762.3 km).
DRAINAGE AREA.--17,980 mi^2 (46,570 km^2), approximately (contributing area).
PERIOD OF RECORD.--August 1939 to December 1940, August 1944 to current year.
REVISED RECORDS.--WSP 1512: 1946-47(M), 1948(p), 1949, 1950(P). WSP 1712: Drainage area.
GAGE.--Water-stage recorder. Datum of gage is 3,171.31 ft (966.615 m) Bureau of Reclamation datum. Prior to Aug. 10, 1944, at site 1,000 ft (305 m) downstream, at datum 1.00 ft (0.035 m) higher. Aug. 10, 1944, to Dec. 31, 1966, at present site at datum 1.00 ft (0.305 m) higher.
REMARKS.--Records fair. Flow regulated by Lake McMillan (station 08400500) since 1893, and by several other reservoirs. Diversions and ground-water withdrawals for irrigation of about 173,000 acres (700 km^2), 1959 determination, above station. Discharge represents inflow to Lake Avalon. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--38 years (1940, 1945-81), 157 ft^3/s (4.446 m^3/s), 113,700 acre-ft/yr (140 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 69,000 ft^3/s (1,950 m^3/s) Aug. 23, 1966, gage height, 21.32 ft (6.194 m), present datum, from floodmark, from rating curve extended above 25,000 ft^3/s (708 m^3/s) on basis of slope-area measurement at gage height 19.53 ft (5.953 m); minimum, 4.3 ft^3/s (0.12 m^3/s) Aug. 5, 1954.
EXTREMES OUTSIDE PERIOD OF RECORD.--Peaks which probably exceeded 40,000 ft^3/s (1,100 m^3/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 ft^3/s (1,700 m^3/s). Floods of 1893 and 1904 originated above McMillan Dam and contributed to the two failures of Avalon Dam.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,320 ft^3/s (94.0 m^3/s) July 9, gage height, 6.96 ft (2.121 m); minimum, 18 ft^3/s (0.51 m^3/s) Apr. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	48	36	43	44	44	28	79	22	228	36	50
2	43	47	38	43	44	44	28	79	22	237	30	103
3	43	47	38	44	44	42	23	78	24	188	29	161
4	43	47	38	44	44	41	26	46	23	132	25	241
5	44	47	38	44	44	36	27	26	61	119	25	206
6	45	46	39	45	43	36	27	28	71	92	24	79
7	45	43	40	45	43	35	115	89	71	98	24	69
8	45	44	40	45	42	36	169	49	110	96	25	67
9	44	44	40	45	39	37	193	26	165	732	24	66
10	45	44	40	45	37	37	326	25	172	50	25	107
11	45	44	40	45	38	37	329	23	179	41	26	250
12	45	44	40	45	40	37	329	24	167	38	26	56
13	45	43	40	46	42	37	329	88	123	37	25	31
14	45	43	40	49	40	33	262	106	85	37	24	31
15	44	40	42	51	40	29	92	160	87	38	23	31
16	46	41	42	45	40	29	87	162	88	36	22	31
17	44	42	40	38	39	29	85	142	88	36	23	99
18	45	42	40	47	41	29	81	160	124	36	31	202
19	45	42	40	47	42	29	79	200	184	36	22	219
20	44	43	40	47	41	28	79	208	190	65	21	189
21	44	43	40	47	42	28	113	200	160	140	21	130
22	44	39	40	46	43	28	193	202	125	190	23	155
23	44	39	41	45	42	28	185	219	125	230	24	193
24	44	39	42	45	42	28	128	244	160	230	24	210
25	124	44	42	43	43	28	124	221	180	230	25	231
26	140	39	42	44	43	28	125	194	180	250	25	135
27	140	39	42	45	44	28	124	193	180	310	25	126
28	144	38	42	45	44	28	126	179	185	310	25	112
29	143	38	43	45	---	28	84	163	200	250	23	48
30	60	38	43	44	---	28	78	55	221	120	24	56
31	48	---	43	44	---	28	---	25	---	115	24	---
TOTAL	1863	1277	1251	1396	1170	1013	3994	3693	3772	4747	773	3684
MEAN	60.1	42.6	40.4	45.0	41.8	32.7	133	119	126	153	24.9	123
MAX	144	48	43	51	44	44	329	244	221	732	36	250
MIN	43	38	36	38	37	28	23	23	22	36	21	31
AC-FT	3700	2530	2480	2770	2320	2010	7920	7330	7480	9420	1530	7310

CAL YR 1980 TOTAL 45406 MEAN 124 MAX 1180 MIN 25 AC-FT 90060
WTR YR 1981 TOTAL 28633 MEAN 78.4 MAX 732 MIN 21 AC-FT 56790

NOTE.--NO GAGE-HEIGHT RECORD JULY 9-31.

08403500 CARLSBAD MAIN CANAL AT HEAD, NEAR CARLSBAD, NM

LOCATION.--Lat 32°29'25", long 104°15'08", in NW¼SW¼SW¼ sec.12, T.21 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on right bank 220 ft (67 m) downstream from headgates in Avalon Dam, and 3.3 mi (5.3 km), north of Carlsbad. Pecos River mile 467.2 (751.7 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) 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.

REMARKS.--Records fair. Carlsbad main canal diverts water from Lake Avalon (station 08403800) for irrigation of about 25,000 acres (100 km^2) in the Carlsbad Irrigation District. About 1,600 acres (6.5 km^2) are irrigated on the left bank, most of it upstream from gaging station 08405200. The remaining acreage (most of which is downstream from station 08405200) is on the right bank. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--42 years, 103 ft^3/s (2.917 m^3/s), 74,620 acre-ft/yr (92.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 526 ft^3/s (14.9 m^3/s) Sept. 15, 16, 1946; no flow many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.56	.40	.00	.00	.00	.00	100	114	48	210	.00	163
2	.20	.20	.00	.00	.00	.00	147	58	53	189	.00	180
3	.20	.11	.00	.00	.00	.00	219	29	90	165	.00	198
4	.20	.00	.00	.00	.00	.00	255	.41	73	118	.00	189
5	43	.00	.00	.00	.00	.00	230	.40	50	97	.00	154
6	71	.00	.00	.00	.00	.00	252	50	50	107	.00	105
7	65	.00	.00	.00	.00	.00	251	56	55	107	.00	121
8	51	.00	.00	.00	.00	.00	257	42	74	107	.00	82
9	73	.00	.00	.00	.00	.00	269	33	91	85	.00	68
10	93	.00	.00	.00	.00	.00	274	33	101	39	.00	68
11	69	.00	.00	.00	.00	.00	266	32	92	33	.00	82
12	60	.00	.00	.00	.00	.00	280	63	95	37	.00	.00
13	131	.00	.00	.00	.00	.00	284	105	78	67	.00	.00
14	161	.00	.00	.00	.00	.00	228	114	54	101	.00	.00
15	132	.00	.00	.00	.00	.00	112	107	76	111	.00	103
16	169	.00	.00	.00	.00	.00	101	117	108	85	.00	146
17	180	.00	.00	.00	.00	.00	136	111	119	90	.00	198
18	132	.00	.00	.00	.00	.00	112	154	135	116	.00	207
19	100	.00	.00	.00	.00	.00	81	200	146	120	.00	180
20	113	.00	.00	.00	.00	.00	96	220	143	143	.00	163
21	123	.00	.00	.00	.00	.00	141	239	107	164	.00	146
22	135	.00	.00	.00	.00	.00	170	227	127	178	.00	180
23	173	.00	.00	.00	.00	.00	151	232	153	199	.00	207
24	185	.00	.00	.00	.00	.00	120	170	187	194	.00	207
25	175	.00	.00	.00	.00	.00	129	152	196	199	.00	171
26	164	.00	.00	.00	.00	.00	124	185	187	215	.00	137
27	185	.00	.00	.00	.00	.00	119	180	185	240	.00	82
28	168	.00	.00	.00	.00	.00	130	149	172	265	.00	73
29	137	.00	.00	.00	---	.00	129	114	232	238	.00	62
30	113	.00	.00	.00	---	.00	126	66	226	257	.00	130
31	51	---	.00	.00	---	59	---	53	---	205	87	---
TOTAL	3253.16	.71	.00	.00	.00	59.00	5289	3405.81	3503	4481	87.00	3802.00
MEAN	105	.024	.000	.000	.000	1.90	176	110	117	145	2.81	127
MAX	185	.40	.00	.00	.00	59	284	239	232	265	87	207
MIN	.20	.00	.00	.00	.00	.00	81	.40	48	33	.00	.00
AC-FT	6450	1.4	.00	.00	.00	117	10490	6760	6950	8890	173	7540

CAL YR 1980 TOTAL 38727.67 MEAN 106 MAX 362 MIN .00 AC-FT 76820
WTR YR 1981 TOTAL 23880.68 MEAN 65.4 MAX 284 MIN .00 AC-FT 47370

08403800 LAKE AVALON NEAR CARLSBAD, NM

LOCATION.--Lat 32°29'27", long 104°15'05", in NW¼SW¼ sec.12, T.21 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on headwall at outlet gate of dam on Pecos River, 3.3 mi (5.3 km) north of Carlsbad, and at mile 467.2 (751.7 km).

DRAINAGE AREA.--18,070 mi^2 (46,800 km^2), approximately (contributing area).

PERIOD OF RECORD.--January 1939 to September 1965 (monthend gage heights and contents). October 1965 to current year. Monthend gage heights January 1919 to December 1938 in files of Pecos River Commission.

REVISED RECORDS.--WSP 898: 1939.

GAGE.--Nonrecording gage. Datum of gage is 3,157.0 ft (962.25 m) National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Lake is formed by Avalon Dam, an earthfill structure. The original Eddy (Avalon) Dam was completed and storage began in 1891. The dam was destroyed by flood of Aug. 3, 1893; repaired immediately. The dam was destroyed again Oct. 2, 1904; construction of present dam commenced on June 1, 1906, and was 88 percent complete June 30, 1907. Capacity, 4,970 acre-ft (6.1 hm^3) between gage heights 0.0 (sill of outlet [illegible]) and 20.4 ft (6.22 m), crest of spillway No. 2. No dead storage. No storage allocated to flood control. [illegible] given herein represent usable contents. Water is used by Carlsbad Irrigation District.

COOPERATION.--Gage-height record and capacity table (based on August 1964 survey) furnished by Carlsbad [illegible] District.

EXTREMES FOR PERIOD OF RECORD (SINCE 1938).--Maximum contents, 11,000 acre-ft (13.6 hm^3) May 22, 1941, gage height, 25.0 ft (7.62 m); no storage at times when natural flow was passing through reservoir.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 4,880 acre-ft (6.02 hm^3) Oct. 1-3, gage height, 20.30 ft (6.187 m); minimum, 955 acre-ft (1.18 hm^3) Oct. 31, July 22,23, Sept. 3, 4, gage height, 15.10 ft (4.602 m).

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4880	1010	3010	4020	4300	4250	3890	1280	1510	1320	1010	1380
2	4880	1130	3010	4020	4300	4250	3650	1220	1440	1350	1070	1130
3	4880	1190	3090	4070	4300	4250	3330	1250	1320	1410	1100	955
4	4840	1280	3130	4070	4250	4250	2850	1440	1010	1510	1130	955
5	4840	1350	3170	4120	4250	4250	2400	1510	1070	1580	1130	1130
6	4700	1440	3250	4120	4250	4250	1980	1510	1070	1640	1160	1190
7	4610	1510	3290	4160	4250	4250	1510	1380	1100	1510	1190	1130
8	4480	1580	3330	4160	4250	4250	1320	1510	1070	1480	1190	1130
9	4380	1640	3330	4200	4250	4250	1130	1440	1130	1440	1220	1070
10	4200	1700	3370	4200	4250	4250	1010	1380	1250	2780	1220	1010
11	4070	1770	3410	4200	4200	4250	1190	1320	1380	2700	1220	1190
12	3980	1840	3450	4250	4200	4250	1320	1320	1510	2620	1320	1510
13	3810	1910	3450	4250	4200	4250	1380	1130	1580	2550	1320	1610
14	3570	1980	3490	4250	4200	4250	1510	1130	1580	2400	1380	1670
15	3370	2050	3570	4250	4200	4250	1640	1130	1610	2220	1410	1700
16	3130	2120	3610	4250	4200	4250	1610	1320	1580	2050	1410	1440
17	2850	2190	3650	4300	4200	4250	1510	[illegible]	1510	1910	1440	1160
18	2550	2190	3650	4300	4200	4250	1440	1320	1380	1740	1510	982
19	2400	2300	3650	4300	4160	4250	1440	1320	1380	1540	1510	1010
20	2260	2330	3690	4340	4160	4250	1380	1320	1440	1320	1510	1070
21	2120	2400	3730	4340	4160	4250	1320	1250	1510	1070	1510	1160
22	1940	2480	3730	4340	4160	4200	1220	1190	1610	955	1540	1070
23	1700	2550	3810	4300	4160	4200	1380	1070	1540	955	1540	1070
24	1440	2550	3810	4300	4160	4200	1440	1130	1440	1010	1540	1010
25	1190	2620	3850	4300	4160	4200	1440	1320	1380	1040	1540	1010
26	1130	2700	3850	4300	4160	4200	1440	1380	1320	1070	1540	1160
27	1130	2780	3890	4300	4160	4200	1480	1410	1320	1070	1540	1250
28	1070	2850	3940	4300	4250	4200	1510	1480	1250	1130	1580	1320
29	1070	2930	3980	4300	---	4160	1510	1510	1250	1190	1610	1320
30	1070	3010	3980	4300	---	4160	1380	1640	1320	1290	1610	1190
31	955	---	4020	4300	---	4120	---	1640	---	1010	1640	---
MAX	4880	3010	4020	4340	4300	4250	3890	1640	1610	2780	1640	1700
MIN	955	1010	3010	4020	4160	4120	1010	1070	1010	955	1010	955
(+)	-3925	+2055	+1010	+280	-50	-130	-2740	+260	-320	-310	+630	-450

WTR YR 1981 MAX 4880 MIN 955 (+) -3690

(+) CHANGE IN CONTENTS IN ACRE-FEET.

08403800 LAKE AVALON NEAR CARLSBAD, NM -- Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.30	15.20	18.10	19.35	19.65	19.60	19.20	15.65	16.00	15.70	15.20	15.80
2	20.30	15.40	18.10	19.35	19.65	19.60	18.90	15.55	15.90	15.75	15.30	15.40
3	20.30	15.50	18.20	19.40	19.65	19.60	18.50	15.60	15.70	15.85	15.35	15.10
4	20.25	15.65	18.25	19.40	19.60	19.60	17.90	15.90	15.20	16.00	15.40	15.10
5	20.25	15.75	18.30	19.45	19.60	19.60	17.30	16.00	15.30	16.10	15.40	15.40
6	20.10	15.90	18.40	19.45	19.60	19.60	16.70	16.00	15.30	16.20	15.45	15.50
7	20.00	16.00	18.45	19.50	19.60	19.60	16.00	15.80	15.35	16.00	15.50	15.40
8	19.85	16.10	18.50	19.50	19.60	19.60	15.70	16.00	15.30	15.95	15.50	15.40
9	19.75	16.20	18.50	19.55	19.60	19.60	15.40	15.90	15.40	15.90	15.55	15.30
10	19.55	16.30	18.55	19.55	19.60	19.60	15.20	15.80	15.60	17.80	15.55	15.20
11	19.40	16.40	18.60	19.55	19.55	19.60	15.50	15.70	15.80	17.70	15.55	15.50
12	19.30	16.50	18.65	19.60	19.55	19.60	15.70	15.70	16.00	17.60	15.70	16.00
13	19.10	16.60	18.65	19.60	19.55	19.60	15.80	15.40	16.10	17.50	15.70	16.15
14	18.80	16.70	18.70	19.60	19.55	19.60	16.00	15.40	16.10	17.30	15.80	16.25
15	18.55	16.80	18.80	19.60	19.55	19.60	16.20	15.40	16.15	17.05	15.85	16.30
16	18.25	16.90	18.85	19.60	19.55	19.60	16.15	15.55	16.10	16.80	15.85	15.90
17	17.90	17.00	18.90	19.65	19.55	19.60	16.00	15.60	16.00	16.60	15.90	15.45
18	17.50	17.00	18.90	19.65	19.55	19.60	15.90	15.70	15.80	16.35	16.00	15.15
19	17.30	17.15	18.90	19.65	19.50	19.60	15.90	15.70	15.80	16.05	16.00	15.20
20	17.10	17.20	18.95	19.70	19.50	19.60	15.80	15.70	15.90	15.70	16.00	15.30
21	16.90	17.30	19.00	19.70	19.50	19.60	15.70	15.60	16.00	15.30	16.00	15.45
22	16.65	17.40	19.00	19.70	19.50	19.55	15.55	15.50	16.15	15.10	16.05	15.30
23	16.30	17.50	19.10	19.65	19.50	19.55	15.80	15.30	16.05	15.10	16.05	15.30
24	15.90	17.50	19.10	19.65	19.50	19.55	15.90	15.40	15.90	15.20	16.05	15.20
25	15.50	17.60	19.15	19.65	19.50	19.55	15.90	15.70	15.80	15.25	16.05	15.20
26	15.40	17.70	19.15	19.65	19.50	19.55	15.90	15.80	15.70	15.30	16.05	15.45
27	15.40	17.80	19.20	19.65	19.50	19.55	15.95	15.85	15.70	15.30	16.05	15.60
28	15.30	17.90	19.25	19.65	19.60	19.55	16.00	15.95	15.60	15.40	16.10	15.70
29	15.30	18.00	19.30	19.65	---	19.50	16.00	16.00	15.60	15.50	16.15	15.70
30	15.30	18.10	19.30	19.65	---	19.50	15.80	16.20	15.70	15.65	16.15	15.50
31	15.10	---	19.35	19.65	---	19.45	---	16.20	---	15.20	16.20	---
MEAN	17.96	16.77	18.78	19.58	19.56	19.58	16.28	15.73	15.77	16.07	15.79	15.51
MAX	20.30	18.10	19.35	19.70	19.65	19.60	19.20	16.20	16.15	17.80	16.20	16.30
MIN	15.10	15.20	18.10	19.35	19.50	19.45	15.20	15.30	15.20	15.10	15.20	15.10

WTR YR 1981 MEAN 17.27 MAX 20.30 MIN 15.10

08404000 PECOS RIVER BELOW AVALON DAM, NM

LOCATION.--Lat 32°28'55", long 104°15'47", in SW¼SW¼NE¼ sec.14, T.21 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on right bank 4,800 ft (1,460 m) below Avalon Dam, 4.5 mi (7.2 km) northwest of Carlsbad, and at mile 466.3 (750.3 km).
DRAINAGE AREA.--18,080 mi^2 (46,830 km^2), 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.
REMARKS.--Records good. Flow completely regulated by Lake Avalon (station 08403800) since 1891. Flow also regulated by several other reservoirs. Diversions and ground-water withdrawals above station for irrigation of about 198,000 acres (800 km^2), 1959 determination. Station bypassed by Carlsbad main canal (station 08403500).
AVERAGE DISCHARGE.--30 years 31.9 ft^3/s (0.903 m^3/s), 23,110 acre-ft/yr (28.5 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,500 ft^3/s (1,570 m^3/s) Aug. 23, 1966, gage height, 26.4 ft (8.05 m), from floodmarks, from rating curve extended above 33,000 ft^3/s (935 m^3/s) on basis of computation of peak flow over Tansill Dam 5.8 mi (1.3 km) downstream; no flow most of time.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 2, 1904, caused in part, by failure of Avalon Dam, probably exceeded 90,000 ft^3/s (2,550 m^3/s) and is probably the greatest flood since 1842. A major flood occured Aug. 3, 1893, and was described as "greatest in 50 years"; it damaged McMillan Dam, then under construction, and washed out the original Avalon Dam. Another major flood occurred Aug. 7, 1916, discharge 70,000 ft^3/s (1,980 m^3/s) at site 6.5 mi (10.5 km) downs and washed out the original Avalon Dam. Another major flood occurred Aug. 7, 1916, discharge 70,000 ft^3/s (1,980 m^3/s) at site 6.5 mi (10.5 km) downstream.
EXTREMES FOR CURRENT YEAR.--No flow during year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1980 TOTAL 13.16 MEAN .036 MAX 13 MIN .00 AC-FT 26
WTR YR 1981 TOTAL 0.00 MEAN .000 MAX .00 MIN .00 AC-FT .00

08405000 PECOS RIVER AT CARLSBAD, NM

LOCATION.--Lat 32°24'42", long 104°13'17", in SE¼NE¼NE¼ sec. 7, T.22 S., R.27 E., Eddy County, Hydrologic Unit 13060011, immediately downstream from Lower Tansil Dam, which is approximately 0.2 mi (0.3 km) upstream from Dark Canyon, and 0.5 mi (0.8 km) downstream from the Greene Street Bridge on U.S. Highway 62-180 in Carlsbad.

DRAINAGE AREA.--18,100 mi^2 (46,900 km^2), approximately (contributing area).

PERIOD OF RECORD.--Water years 1905-07, 1937-46, 1951 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1905 to April 1907, May 1937 to September 1946, July 1951 to current year.
WATER TEMPERATURES: July 1951 to current year.

REMARKS.--Prior to impoundment above Lower Tansil Dam in January 1970 samples were collected at gage on Greene Street Bridge. Additional samples were collected at 08405200 Pecos River below Dark Canyon for comparison with those collected at this station. Mean daily discharges are estimated from discharge station below Dark Canyon.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 6,800 micromhos Aug. 3, 1974; minimum daily, 401 micromhos Sept. 23, 1974.
WATER TEMPERATURES: Maximum, 38.0°C May 28, 1969; minimum, 0.0°C Dec. 18, 1965.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,520 micromhos Mar. 13; minimum daily, 1,530 micromhos Oct. 1.
WATER TEMPERATURES: Maximum, 32.0°C July 4, Aug. 2; minimum, 5.0°C Feb. 23.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
DEC											
16...	1400	26	3000	8.2	20.0	12.0	1300	1100	--	330	110
JAN											
20...	1330	31	3260	7.9	28.0	9.0	1200	1100	--	320	100
FEB											
23...	1330	25	3250	8.1	24.0	5.0	1200	--	--	330	100
MAR											
23...	1330	56	3640	8.0	20.0	15.0	1600	--	1400	400	140
APR											
21...	1400	25	2950	7.7	19.0	18.0	1100	--	1000	300	93
MAY											
27...	1515	30	3320	8.0	35.0	27.0	1300	--	1200	340	120
JUN											
29...	0900	11	3640	8.0	25.0	26.0	1300	--	1200	340	120
AUG											
24...	0930	16	3220	7.9	29.0	27.0	1200	--	1000	300	100
SEP											
17...	1430	22	3280	8.2	18.0	24.0	1200	--	1100	300	120

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
DEC											
16...	300	3.7	4.5	180	960	520	1.1	17	2350	170	60
JAN											
20...	290	3.6	4.0	--	950	470	.7	14	2250	180	20
FEB											
23...	290	3.6	4.1	150	1000	520	.6	18	2350	200	50
MAR											
23...	380	4.2	4.5	180	1300	670	.7	17	3020	230	40
APR											
21...	260	3.4	4.9	120	900	420	.6	11	2060	170	60
MAY											
27...	310	3.7	5.1	140	1000	540	.6	16	2420	200	60
JUN											
29...	410	4.9	4.8	120	1200	620	.7	17	2790	250	40
AUG											
24...	300	3.8	4.6	140	960	520	.0	7.7	2280	210	20
SEP											
17...	300	3.7	3.7	140	1000	540	.8	15	2360	220	70

08405000 PECOS RIVER AT CARLSBAD, NM

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1530	3570	3380	3240	3190	3310	4290	3010	3410	3720	3660	3280
2	1580	3490	3320	3220	3220	3310	4400	3040	3590	3650	3610	3280
3	1670	3490	3310	3220	3160	3340	4400	3070	3540	3610	3600	3310
4	1980	3490	3310	3220	3250	3380	4330	3150	3530	3610	3590	3310
5	1980	3480	3310	3220	3250	3380	4230	3180	3560	3320	3550	3190
6	2180	3430	3320	3240	3280	3380	4240	3150	3590	3420	3570	3150
7	2290	3470	3360	3270	3280	3380	4250	3130	3620	3450	3580	3180
8	2380	3460	3370	3210	3280	3390	4260	3150	3670	3470	3570	3030
9	2490	3440	3390	3270	3280	3410	4280	3200	3670	2540	3590	3060
10	2530	3450	3410	3230	3310	3370	4060	3230	3680	3150	3590	3120
11	2610	3450	3400	3170	3310	3840	4080	3300	3690	3150	3590	3200
12	2700	3470	3370	3190	3280	4180	4110	3310	3690	3200	2700	3220
13	2800	3460	3340	3170	3270	4520	3960	3360	3710	3180	3160	3250
14	2890	3490	3370	3170	3270	4020	3430	3360	3750	3310	3150	3280
15	3000	3510	3360	3170	3300	4030	2500	3400	3750	3380	3210	3280
16	3110	3510	3370	3170	3350	4180	2510	3420	3770	3430	3270	3280
17	3150	3490	3330	3200	3350	4250	3080	3420	3770	3380	3310	3270
18	3230	3490	3320	3170	3350	4260	2500	3430	3770	3450	2940	3290
19	3330	3470	3310	3160	3350	4200	2500	3460	3760	3470	2990	3290
20	3360	3470	3300	3170	3350	4180	2500	3500	3760	3500	3210	3280
21	3380	3440	3300	3170	3350	4180	2500	3500	3760	3500	3180	3280
22	3470	3480	3300	3170	3350	4190	2500	3540	3800	3530	3210	3280
23	3460	3440	3330	3170	3310	4150	2500	3610	3800	3530	3240	3180
24	3500	3410	3390	3170	3310	4110	2500	3520	3800	3540	3250	3200
25	3530	3290	3390	3170	3310	4070	2500	3490	3810	3560	3260	3190
26	3530	3240	3360	3170	3320	4070	2500	3560	3800	3570	3280	3210
27	3550	3260	3330	3140	3350	4050	2500	3460	3800	3570	3280	3220
28	3560	3320	3320	3160	3310	4070	2490	3540	3840	3580	3290	3210
29	3550	3340	3300	3210	---	4090	2500	3490	3810	3540	3300	3210
30	3560	3350	3290	3190	---	4130	2500	3290	3810	3530	3300	3220
31	3560	---	3290	3170	---	4160	---	3390	---	3500	3310	---
MEAN	2890	3440	3340	3190	3300	3890	3300	3340	3710	3430	3330	3230

WTR YR 1981 MEAN 3370 MAX 4520 MIN 1530

WATER TEMPERATURE (DEG.°C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.5	13.0	11.0	10.0	10.5	15.0	15.0	23.0	24.0	28.0	26.0	25.0
2	22.0	14.5	10.0	9.0	9.0	14.5	17.5	22.5	27.0	26.0	29.0	26.0
3	20.5	14.0	9.0	10.0	9.0	15.0	15.0	22.0	24.0	28.0	28.0	27.0
4	20.0	14.0	9.0	11.0	9.0	14.0	10.0	24.5	25.0	32.0	28.0	25.0
5	24.0	14.0	10.0	10.0	10.0	13.0	16.0	23.0	27.5	30.0	29.0	25.0
6	21.5	14.0	10.0	9.5	8.5	13.5	16.0	22.0	25.0	29.0	29.0	25.0
7	21.0	15.0	12.0	10.0	9.0	14.0	15.0	22.0	26.0	29.0	27.0	25.0
8	21.0	15.0	11.0	10.0	10.5	13.0	14.5	22.0	30.0	27.0	27.0	24.0
9	21.5	16.5	10.0	10.0	10.0	13.5	15.0	20.0	30.0	26.0	25.0	23.0
10	21.0	15.0	9.5	9.5	10.0	12.5	19.0	22.0	25.0	26.0	26.0	24.0
11	20.0	15.5	10.0	10.0	8.0	12.5	19.0	21.0	28.0	28.0	25.0	25.0
12	19.5	16.0	9.5	10.0	7.5	14.0	20.0	21.5	26.0	28.0	26.0	25.0
13	20.0	16.0	9.5	9.0	8.5	14.0	21.0	21.5	27.0	27.0	25.0	26.0
14	20.0	15.0	10.5	10.0	9.0	14.0	19.0	22.0	29.0	28.0	25.0	25.0
15	20.0	14.0	9.0	10.0	10.0	14.0	16.0	22.0	25.0	29.0	25.0	24.0
16	19.5	11.0	10.0	9.0	9.5	15.0	16.0	22.0	24.0	29.0	26.0	25.0
17	19.0	9.0	10.0	8.0	11.0	16.0	16.0	21.0	24.0	28.0	25.0	24.0
18	18.0	9.0	10.5	8.0	11.0	14.0	18.0	24.0	25.5	29.0	24.0	24.0
19	18.5	9.0	10.0	8.0	11.5	14.0	19.0	21.0	25.5	28.0	24.0	24.0
20	17.5	8.5	9.0	9.0	12.0	14.0	20.0	22.5	28.5	30.0	29.0	25.0
21	17.5	10.5	7.5	8.0	12.0	13.0	20.0	22.0	26.0	29.0	28.0	23.0
22	18.0	9.0	7.0	9.0	11.5	14.0	20.0	23.0	28.0	29.0	25.0	23.0
23	16.5	10.0	9.5	10.5	11.0	14.0	19.0	24.0	29.0	28.0	28.0	25.0
24	16.0	9.5	9.0	9.0	11.5	14.5	19.0	20.0	25.0	27.0	28.0	23.0
25	17.0	7.0	8.0	10.0	12.5	15.0	19.0	22.5	27.0	30.0	27.0	25.0
26	17.5	8.0	8.0	9.5	13.0	15.0	20.0	26.0	28.0	30.0	26.0	25.0
27	15.0	7.5	9.0	10.0	14.0	15.5	21.0	24.0	27.0	29.0	25.0	23.0
28	14.0	7.5	10.0	10.5	14.5	14.0	21.0	25.0	29.0	25.0	28.0	24.0
29	12.5	7.5	10.5	10.5	---	12.5	22.0	25.0	27.0	25.0	28.0	24.0
30	15.0	9.5	10.5	11.0	---	12.5	23.0	22.5	29.0	26.0	29.0	24.0
31	14.0	---	9.0	10.0	---	14.0	---	23.0	---	26.0	30.0	---
MEAN	18.5	12.0	9.5	9.5	10.5	14.0	18.0	22.5	26.5	28.0	27.0	24.5

WTR YR 1981 MEAN 18.5 MAX 32.0 MIN 7.0

08405150 DARK CANYON DRAW AT CARLSBAD, NM

LOCATION.--Lat 32°24'24", long 104°13'34", in NE¼NW¼SE¼ sec.7, T.22 S., R.27 E., Eddy County, Hydrologic Unit 13060011, on 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 459.2 (738.9 km).

DRAINAGE AREA.--450 mi^2 (1,170 km^2), approximately.

PERIOD OF RECORD.--January 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,088.21 ft (941.286 m) National Geodetic Vertical Datum of 1929.

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 (8.5 km^2), 1973 determination, and for municipal supply for Carlsbad. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--8 years, 9.19 ft^3/s (0.260 m^3/s), 6,660 acre-ft/yr (8.21 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,000 ft^3/s (765 m^3/s) Sept. 26, 1980, gage height, 12.10 ft (3.688 m) from rating curve extended above 7,100 ft^3/s (200 m^3/s); no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Aug. 23, 1966, reached a discharge of 66,000 ft^3/s (1,870 m^3/s) as determined by slope-area measurement 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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,250 ft^3/s (63.7 m^3/s) at 1330 hours July 9, gage height, 6.15 ft (1.875 m), no other peak above base of 500 ft^3/s (14 m^3/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	367	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	16	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	383.05	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	12.4	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	367	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	760	.00	.00

CAL YR 1980 TOTAL 9922.00 MEAN 27.1 MAX 8750 MIN .00 AC-FT 19680
WTR YR 1981 TOTAL 383.05 MEAN 1.05 MAX 367 MIN .00 AC-FT 760

08405200 PECOS RIVER BELOW DARK CANYON DRAW, AT CARLSBAD,NM

LOCATION.--Lat 32°24'37", long 104°12'58", in NE¼SW¼NW¼ sec.8, T.22 S., R.27 E., Eddy County, Hydrologic Unit 13060011, on left bank, 700 ft (210 m) downstream from mouth of Dark Canyon Draw, 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 459.1 (738.7 km).
DRAINAGE AREA.--18,550 mi^2 (48,040 km^2), approximately, contributing area.

WATER-DISCHARGE RECORDS

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) National Geodetic Vertical Datum of 1929.
REMARKS.--Water-discharge records fair. Flow regulated by Lake Avalon (station 08403800) since 1891, and by several other reservoirs, and at low stages by power plant. 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 (93 km^2) below. Diversions and ground-water withdrawals above station for irrigation of about 198,000 acres (800 km^2), 1959 determination.
AVERAGE DISCHARGE.--11 years, 50.8 ft^3/s (1.439 m^3/s), 36,800 acre-ft/yr (45.4 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,200 ft^3/s (799 m^3/s) Sept. 26, 1980, gage height, 14.60 ft (4.450 m), from floodmarks; no flow at times.
EXTREMES OUTSIDE PERIOD OF RECORD.--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 station 08404000.)
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,240 ft^3/s (148 m^3/s) July 9, gage height, 6.13 ft (1.868 m); minimum, 0.52 ft^3/s (0.015 m^3/s) July 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	46	32	28	41	29	1.0	43	17	21	13	15
2	45	45	31	31	41	29	1.0	49	16	16	13	14
3	44	45	30	31	41	30	1.0	41	19	14	13	14
4	45	42	30	31	41	29	1.0	35	19	13	13	17
5	45	44	30	31	41	21	1.0	28	19	23	13	21
6	46	41	30	31	41	40	1.0	34	20	12	12	17
7	47	33	30	31	45	51	1.0	24	19	11	12	20
8	52	30	30	31	51	66	1.0	24	19	12	8.8	20
9	48	30	29	31	56	132	1.0	23	16	770	10	16
10	46	30	28	31	50	154	1.0	21	16	25	10	18
11	45	30	27	31	40	104	1.0	26	18	17	10	18
12	46	30	27	31	32	72	1.0	25	17	16	35	19
13	48	30	27	33	35	74	1.0	19	16	16	18	20
14	48	30	27	37	36	59	129	19	15	17	17	19
15	47	31	27	37	40	51	40	19	14	19	14	18
16	46	37	26	37	39	62	24	19	11	17	14	17
17	46	35	25	37	43	56	27	18	12	16	20	20
18	46	35	24	37	53	52	30	17	13	16	43	22
19	45	35	24	37	41	54	30	18	15	15	17	18
20	44	35	24	37	31	57	28	22	9.1	14	17	18
21	47	35	24	37	32	54	35	23	11	22	17	21
22	46	35	24	37	22	53	30	19	10	27	17	18
23	43	35	24	37	24	56	33	16	8.1	2.6	17	22
24	41	35	24	38	25	56	26	16	8.2	28	17	20
25	41	34	24	39	27	60	28	16	8.6	2.1	16	21
26	47	34	25	39	29	68	30	16	9.7	5.3	15	19
27	46	33	25	39	29	42	30	15	11	28	15	20
28	47	33	25	39	29	10	49	15	11	1.5	15	20
29	45	33	25	39	---	5.3	39	25	12	11	15	18
30	46	33	25	39	---	1.6	43	22	13	11	15	18
31	46	---	25	43	---	1.2	---	18	---	14	16	---
TOTAL	1421	1054	828	1087	1055	1629.1	664.0	725	422.7	1232.5	497.8	558
MEAN	45.8	35.1	26.7	35.1	37.7	52.6	22.1	23.4	14.1	39.8	16.1	18.6
MAX	52	46	32	43	56	154	129	49	20	770	43	22
MIN	41	30	24	28	22	1.2	1.0	15	8.1	1.5	8.8	14
AC-FT	2820	2090	1640	2160	2090	3230	1320	1440	838	2440	987	1110

CAL YR 1980 TOTAL 18610.08 MEAN 50.8 MAX 9410 MIN .17 AC-FT 36910
WTR YR 1981 TOTAL 11174.10 MEAN 30.6 MAX 770 MIN 1.0 AC-FT 22160

NOTE.--NO GAGE-HEIGHT RECORD NOV. 21 TO DEC. 31.

PERIOD OF RECORD.--Water years 1972 to current year.
REMARKS.--Samples collected at this station for comparision with those collected at 08405000 Pecos River at Carlsbad, N. Mex.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
NOV										
19...	0930	35	3200	8.1	9.0	9.0	6.1	10.9	1400	1200
DEC										
16...	1430	26	3000	8.2	24.0	14.0	--	--	--	--
JAN										
20...	1430	31	4000	8.0	20.0	8.0	--	--	--	--
FEB										
23...	1430	25	3280	8.2	23.0	6.0	--	--	--	--
MAR										
23...	1400	56	4220	8.2	21.0	17.0	--	--	--	--
APR										
21...	1530	25	2850	7.8	20.0	21.0	--	--	--	--
MAY										
29...	0710	17	3530	8.0	18.0	22.0	4.1	7.7	1300	--
JUN										
29...	1000	11	3720	7.9	26.0	27.0	--	--	--	--
JUL										
10...	0905	24	1960	7.6	--	20.0	--	--	700	600
AUG										
24...	1000	17	3260	7.9	31.0	25.0	--	--	--	--

DATE	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV										
19...	--	350	120	330	3.9	5.7	--	--	160	1000
DEC										
16...	--	--	--	--	--	--	--	--	--	--
JAN										
20...	--	--	--	--	--	--	--	--	--	--
FEB										
23...	--	--	--	--	--	--	--	--	--	--
MAR										
23...	--	--	--	--	--	--	--	--	--	--
APR										
21...	--	--	--	--	--	--	--	--	--	--
MAY										
29...	1100	330	110	320	3.9	4.3	--	--	150	1100
JUN										
29...	--	--	--	--	--	--	--	--	--	--
JUL										
10...	600	180	60	170	2.8	4.8	120	98	93	530
AUG										
24...	--	--	--	--	--	--	--	--	--	--

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
NOV										
19...	570	.3	--	16	2700	2500	2.0	1.9	.130	.060
DEC										
16...	--	--	--	--	--	--	--	--	--	--
JAN										
20...	--	--	--	--	--	--	--	--	--	--
FEB										
23...	--	--	--	--	--	--	--	--	--	--
MAR										
23...	--	--	--	--	--	--	--	--	--	--
APR										
21...	--	--	--	--	--	--	--	--	--	--
MAY										
29...	550	.6	.40	15	2660	2530	.91	.93	.050	.030
JUN										
29...	--	--	--	--	--	--	--	--	--	--
JUL										
10...	280	.3	--	11	--	1300	--	.79	--	--
AUG										
24...	--	--	--	--	--	--	--	--	--	--

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
NOV									
19...	.69	2.8	.030	--	--	40	10	2.2	.6
DEC									
16...	--	--	--	--	--	--	--	--	--
JAN									
20...	--	--	--	--	--	--	--	--	--
FEB									
23...	--	--	--	--	--	--	--	--	--
MAR									
23...	--	--	--	--	--	--	--	--	--
APR									
21...	--	--	--	--	--	--	--	--	--
MAY									
29...	.88	1.8	.050	.020	210	50	10	18	--
JUN									
29...	--	--	--	--	--	--	--	--	--
JUL									
10...	--	--	--	--	--	40	0	--	--
AUG									
24...	--	--	--	--	--	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)
NOV												
19...	0930	2	1	100	0	--	4	0	0	0	1	1
MAY												
29...	0710	1	1	200	100	210	0	0	10	10	0	1

DATE	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI) (01132)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)
NOV											
19...	5	3	240	40	14	2	--	--	30	10	.1
MAY											
29...	3	1	330	50	4	2	40	40	40	10	.1

DATE	MERCURY DISSOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR) (01082)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV											
19...	.0	3	1	2	2	0	0	--	--	30	30
MAY											
29...	.0	1	2	3	3	1	0	4000	4000	30	10

08405200 PECOS RIVER BELOW DARK CANYON DRAW, AT CARLSBAD, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITROGEN,TOT IN BOTTOM MATERIAL (MG/KG AS N) (00603)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	BARIUM, RECOV. FM BOTTOM MATERIAL (UG/G AS BA) (01008)	BERYLLIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01013)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)
NOV 19...	0930	9.4	14	289	380	3	100	0	6	5
MAY 29...	0710	13	4.7	103	260	0	100	0	2	3

DATE	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	MOLYBDENUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01063)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI) (01068)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G) (01148)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
NOV 19...	20	2	350	140	.01	0	30	0	26
MAY 29...	10	8	10	80	.02	0	10	0	24

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
NOV 19...	0930	<43	.5	<19	.7	<18	.7	.18	5.1
MAY 29...	0710	<65	<.6	<27	1.3	<26	1.2	.16	4.3

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLORDANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DIAZINON, TOTAL (UG/L) (39570)	DIELDRIN TOTAL (UG/L) (39380)
NOV 19...	0930	.00	.00	.00	.00	.00	.00	.00	.00
MAY 29...	0710	.00	.00	.00	.00	.00	.00	.00	.00

DATE	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALATHION, TOTAL (UG/L) (39530)	METHOXYCHLOR, TOTAL (UG/L) (39480)	METHYL PARATHION, TOTAL (UG/L) (39600)
NOV 19...	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAY 29...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL TRITHION, TOTAL (UG/L) (39790)	PARATHION, TOTAL (UG/L) (39540)	TOXAPHENE, TOTAL (UG/L) (39400)	TOTAL TRITHION (UG/L) (39786)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PERTHANE TOTAL (UG/L) (39034)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
NOV 19...	.00	.00	0	.00	.00	.00	.00	.00	.00
MAY 29...	.00	.00	0	.00	.00	.00	.00	.00	.00

08405200 PECOS RIVER BELOW DARK CANYON DRAW, AT CARLSBAD, NM -- Continued

WATER-QUALITY RECORDS

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV			
19...	0930	15	29
MAY			
29...	0710	250	200

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
19...	0930	35	9.0	27	2.6	55
MAY						
29...	0710	17	22.0	51	2.3	58

08405500 BLACK RIVER ABOVE MALAGA, NM

LOCATION.--Lat 32°13'44", long 104°09'02", in SW¼NW¼SW¼ sec.12, T.24 S., R.27 E., Eddy County, Hydrologic Unit 13060011, 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 7.1 mi (11.4 km) upstream from mouth. Mouth at Pecos River mile 436.3 (702.0 km).
DRAINAGE AREA.--343 mi^2 (888 km^2).
PERIOD OF RECORD.--March to December 1940, December 1946 to current year.
REVISED RECORDS.--WSP 1632: 1948, 1949-50(P).
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.
REMARKS.--Records good. Diversions and ground-water withdrawals for irrigation of about 1,000 acres (4.0 km^2), 1959 determination, above station. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--34 years (1948-81), 13.2 ft^3/s (0.374 m^3/s), 9,560 acre-ft/yr (11.8 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 74,600 ft^3/s (2,110 m^3/s) Aug. 23, 1966, gage height, 21.7 ft (6.61 m), from floodmarks, from rating curve extended above 5,900 ft^3/s (167 m^3/s) on basis of slope-area measurements at gage heights 12.60 ft (3.840 m) and 21.7 ft (6.61 m); minimum, 0.73 ft^3/s (0.021 m^3/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), from information by local resident.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 20 or 21, 1941, reached a stage of 19.0 ft (5.79 m), present site and datum, determined in 1947 from well defined flood marks, discharge, 33,000 ft^3/s (935 m^3/s), from rating curve extended above 1,400 ft^3/s (39.6 m^3/s) on basis of slope-area measurements at gage heights 8.41 ft (2.563 m) and 12.60 ft (3.840 m).
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 85 ft^3/s (2.41 m^3/s) Aug. 12, gage height, 1.79 ft (0.546 m), no peak above base of 450 ft^3/s (13 m^3/s); maximum gage height, 2.19 ft (0.668 m) June 11 (backwater from pipeline construction); minimum discharge, 1.8 ft^3/s (0.051 m^3/s) Sept. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	4.8	7.2	10	14	6.6	8.0	8.3	7.6	17	8.0	3.5
2	4.8	4.8	7.2	10	14	6.2	9.5	11	8.3	19	8.3	7.2
3	4.3	5.1	7.2	11	14	5.6	9.9	11	8.3	13	8.3	8.7
4	4.3	4.8	7.2	11	15	5.4	9.5	11	8.7	9.5	8.0	9.1
5	4.5	4.8	7.2	11	15	5.1	9.5	12	8.7	10	7.6	9.9
6	5.1	4.8	7.2	11	15	5.1	9.9	20	9.1	9.5	7.6	11
7	4.5	4.8	7.2	11	15	5.4	10	11	9.1	7.6	7.2	12
8	4.5	4.8	7.2	11	14	5.4	10	9.9	8.7	7.6	7.6	12
9	4.5	4.8	7.2	11	14	5.6	11	9.5	9.5	11	7.6	13
10	4.5	5.1	7.2	11	14	5.9	12	9.9	8.7	15	7.6	12
11	4.5	5.6	8.0	11	14	5.9	12	9.9	8.5	12	8.0	11
12	4.5	5.6	9.1	12	14	6.2	12	9.5	8.3	9.9	43	11
13	4.5	5.6	9.9	12	15	6.2	12	9.1	8.3	9.1	28	9.9
14	5.1	5.6	9.9	12	15	6.2	15	9.1	8.3	8.3	16	6.9
15	5.4	5.6	9.9	12	15	5.9	15	9.1	8.0	8.7	12	4.0
16	5.1	6.6	9.9	12	15	5.6	12	9.1	7.2	10	11	2.2
17	4.8	6.9	9.9	12	15	5.6	11	8.7	6.9	12	10	2.0
18	4.3	6.9	9.9	13	14	5.1	11	8.7	6.2	9.5	10	2.4
19	4.0	6.6	9.9	13	9.5	5.1	11	8.7	7.6	8.3	9.9	2.4
20	3.8	6.6	9.5	13	8.7	5.1	10	9.1	8.7	6.6	9.5	2.4
21	3.8	6.6	9.5	12	8.3	4.8	11	9.1	8.7	6.6	9.5	2.4
22	3.8	6.6	9.5	12	8.0	5.1	11	9.1	8.3	6.2	9.5	2.4
23	4.3	6.6	11	13	8.0	5.4	12	9.1	8.0	5.9	9.5	2.8
24	4.3	6.9	10	13	8.0	5.4	11	6.9	7.6	5.4	9.1	3.8
25	4.3	8.3	10	14	8.0	5.4	8.7	4.8	7.2	5.4	8.4	3.8
26	4.3	8.3	10	13	8.0	5.1	5.9	3.8	7.2	5.1	5.6	4.0
27	4.3	8.0	10	13	6.6	5.1	4.5	3.3	7.2	5.1	4.0	4.0
28	4.3	7.2	10	13	6.6	4.8	4.3	3.1	7.2	16	3.3	3.5
29	4.3	7.2	10	13	---	4.5	4.3	3.8	7.6	19	3.1	3.1
30	4.8	7.2	10	14	---	4.5	4.3	5.4	9.9	9.5	2.6	2.8
31	4.8	---	10	14	---	4.5	---	6.9	---	8.3	2.2	---
TOTAL	137.6	183.1	277.9	374	340.7	167.8	297.3	269.9	243.6	306.1	302.0	185.2
MEAN	4.44	6.10	8.96	12.1	12.2	5.41	9.91	8.71	8.12	9.87	9.74	6.17
MAX	5.4	8.3	11	14	15	6.6	15	20	9.9	19	43	13
MIN	3.3	4.8	7.2	10	6.6	4.5	4.3	3.1	6.2	5.1	2.2	2.0
AC-FT	273	363	551	742	676	333	590	535	483	607	599	367

CAL YR 1980 TOTAL 3629.0 MEAN 9.92 MAX 659 MIN 2.2 AC-FT 7200
WTR YR 1981 TOTAL 3085.2 MEAN 8.45 MAX 43 MIN 2.0 AC-FT 6120

08406500 PECOS RIVER NEAR MALAGA, NM
(Pesticide program station)

LOCATION.--Lat 32°12'26", long 104°01'22", in SW¼NW¼NE¼ sec.19, T.24 S., R.29 E., Eddy County, Hydrologic Unit 13060011, 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 432.2 (695.4 km). Water-quality sampling site 2.2 mi (3.5 km) upstream.
DRAINAGE AREA.--19,190 mi^2 (49,700 km^2), approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1920 to current year. Monthly discharge only for some periods, published in WSP 1312.
REVISED RECORDS.--WSP 1632: 1925, 1932-37.
GAGE.--Water-stage recorder. Datum of gage is 2,895.64 ft (882.591 m) National Geodetic Vertical Datum of 1929. May 1, 1920, to Mar. 24, 1949, at datum 3 ft (0.91 m) higher.
REMARKS.--Water-discharge records fair. Flow regulated by many reservoirs and diversion dams. Diversions and ground-water withdrawals above station for irrigation of about 202,000 acres (820 km^2), 1959 determination. Harroun canal bypasses gage on left bank and irrigates approximately 1,000 acres (4.0 km^2) adjacent to and below gage. This bypass is not gaged.
AVERAGE DISCHARGE.--16 years (1921-36), 274 ft^3/s (7.760 m^3/s), 198,500 acre-ft/yr (245 hm^3/yr), prior to completion of Lake Sumner; 45 years (1938-81) 176 ft^3/s (4.984 m^3/s), 127,500 acre-ft/yr (157 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 120,000 ft^3/s (3,400 m^3/s) Aug. 23, 1966, gage height, 42.1 ft (12.83 m), from floodmarks, from rating curve extended above 36,000 ft^3/s (1,020 m^3/s) on basis of slope-area measurement of peak flow; minimum, 3.7 ft^3/s (0.10 m^3/s) Oct. 20, 1976.
ETREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in 1904, discharge not determined. Flood of Aug. 7, 1916, reached a discharge of 70,000 ft^3/s (1,980 m^3/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 ft^3/s (1,140 m^3/s).
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 809 ft^3/s (22.9 m^3/s) Aug. 12, gage height, 7.08 ft (2.158 m); minimum, 11 ft^3/s (0.31 m^3/s) Apr. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	73	85	82	65	54	22	44	49	20	21	29
2	105	78	83	82	66	50	19	49	46	24	20	30
3	88	70	84	82	59	48	17	47	41	31	20	31
4	85	71	83	82	55	52	15	41	38	29	16	29
5	82	72	84	83	55	58	16	41	34	25	16	30
6	82	70	85	79	54	52	15	44	38	20	16	38
7	85	72	86	75	54	50	15	49	35	17	18	42
8	91	72	89	66	54	59	14	43	34	19	17	41
9	84	71	89	66	50	69	14	37	34	22	16	41
10	81	72	84	66	52	126	12	33	34	346	16	43
11	78	72	83	66	63	153	12	30	32	103	19	37
12	81	70	84	68	60	123	13	35	28	53	300	35
13	78	69	86	71	61	95	13	34	24	33	176	33
14	81	68	86	73	63	82	35	35	23	24	85	32
15	88	68	86	71	64	76	164	32	22	21	57	31
16	78	77	85	68	64	73	69	28	21	27	47	30
17	72	84	85	67	60	68	47	27	21	25	40	28
18	66	83	85	72	50	70	45	32	21	25	55	26
19	64	78	84	74	49	65	56	30	19	21	67	26
20	78	79	83	72	48	65	51	26	16	20	56	28
21	67	79	81	70	47	66	44	24	16	22	44	26
22	67	81	81	68	47	66	45	22	23	20	40	23
23	68	81	83	66	46	56	46	22	19	21	39	23
24	70	81	84	67	44	58	52	23	18	22	39	33
25	72	90	83	67	46	60	45	28	16	19	38	52
26	82	101	83	67	45	61	46	22	20	15	37	43
27	86	93	83	66	47	64	42	21	16	13	37	37
28	87	87	83	66	51	61	45	20	15	17	37	37
29	67	86	84	66	---	48	45	24	16	37	36	37
30	74	85	84	66	---	34	43	28	19	37	35	34
31	74	---	83	65	---	27	---	42	---	27	31	---
TOTAL	2501	2333	2611	2199	1519	2089	1117	1013	788	1155	1491	1005
MEAN	80.7	77.8	84.2	70.9	54.3	67.4	37.2	32.7	26.3	37.3	48.1	33.5
MAX	140	101	89	83	66	153	164	49	49	346	300	52
MIN	64	68	81	65	44	27	12	20	15	13	16	23
AC-FT	4960	4630	5180	4360	3010	4140	2220	2010	1560	2290	2960	1990

CAL YR 1980 TOTAL 28436 MEAN 77.7 MAX 9070 MIN 10 AC-FT 56400
WTR YR 1981 TOTAL 19821 MEAN 54.3 MAX 346 MIN 12 AC-FT 39310

08406500 PECOS RIVER NEAR MALAGA, NM -- Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected 2.5 mi (4.0 km) upstream from discharge station.

PERIOD OF RECORD.--Water years 1937 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1937 to current year.
WATER TEMPERATURES: February 1959 to current year.

REMARKS.--No appreciable inflow between discharge station and sampling point except during periods of heavy local rains.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 28,100 micromhos June 7, 1966; minimum daily, 409 micromhos Sept. 27, 1941.
WATER TEMPERATURES: Maximum, 34.0°C June 25, 1964; minimum, 3.0°C Jan. 13, 1963.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 8,900 micromhos June 24; minimum daily, 3,150 micromhos Oct. 1.
WATER TEMPERATURES: Maximum, 31.0°C July 18, Aug. 6; minimum, 6.0°C Dec. 21-22, Jan. 18-19.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT										
24...	1400	69	6600	8.5	21.0	17.0	--	9.9	--	--
NOV										
19...	1415	78	6700	8.3	11.5	8.5	6.5	13.8	2000	1900
DEC										
17...	1300	85	6000	8.5	26.0	11.0	--	--	1900	1800
JAN										
26...	1300	72	5900	8.0	19.0	11.0	--	--	1800	1700
FEB										
25...	1400	47	6750	8.0	31.0	17.0	--	--	1900	1800
MAR										
17...	1200	68	6800	8.0	26.0	15.0	--	--	1600	--
APR										
23...	1400	42	7190	8.0	10.0	17.0	--	--	2000	--
MAY										
28...	1430	21	8050	8.3	37.0	27.0	7.7	12.3	2300	--
JUN										
24...	1330	19	8900	8.0	38.0	28.0	--	--	2300	--
JUL										
28...	1600	13	7800	8.3	26.0	24.0	--	--	1900	--
AUG										
20...	1400	53	4300	8.4	32.0	30.0	--	--	1200	--
SEP										
17...	1200	28	7000	8.1	19.0	22.0	--	--	2100	--

DATE	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT									
24...	--	--	--	--	--	--	--	--	--
NOV									
19...	--	490	190	760	7.4	17	140	1400	1400
DEC									
17...	--	480	180	650	6.4	10	160	1400	1200
JAN									
26...	--	460	170	680	6.9	12	150	1600	1200
FEB									
25...	--	430	190	800	8.1	14	70	1500	1400
MAR									
17...	--	390	160	650	7.0	11	88	1400	1100
APR									
23...	1900	470	200	840	8.2	17	57	1700	1300
MAY									
28...	2200	560	210	1200	11	20	120	1900	2000
JUN									
24...	2200	560	220	1200	11	23	110	2000	2200
JUL									
28...	1800	450	190	1400	14	26	100	1900	1900
AUG									
20...	830	310	110	510	6.3	12	400	940	900
SEP									
17...	2000	500	210	960	9.1	18	130	1700	1700

08406500 PECOS RIVER NEAR MALAGA, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)
OCT									
24...	--	--	--	--	--	1.7	1.9	.720	--
NOV									
19...	.3	--	7.3	4550	4360	2.1	2.0	.160	.080
DEC									
17...	.8	--	16	--	4040	2.6	2.6	.170	--
JAN									
26...	.7	--	15	--	4240	2.5	2.6	.180	.140
FEB									
25...	.4	--	13	--	4390	.82	.83	.140	--
MAR									
17...	.7	--	.7	--	3770	.40	.38	.200	--
APR									
23...	.8	--	1.9	--	4560	.01	.03	.070	--
MAY									
28...	.7	.00	13	6140	5990	1.2	1.2	.090	.110
JUN									
24...	.8	--	12	--	6290	1.1	1.1	.160	--
JUL									
28...	.8	--	13	--	5940	.76	.64	.140	--
AUG									
20...	.5	--	8.6	--	3040	--	.80	--	--
SEP									
17...	1.0	--	15	--	5190	.96	.97	.120	--

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
OCT									
24...	.78	3.2	.050	.000	--	--	--	--	--
NOV									
19...	2.8	5.1	.050	--	--	40	30	4.9	<4.0
DEC									
17...	1.3	4.1	.180	--	360	30	--	--	--
JAN									
26...	1.2	3.9	.270	.060	360	40	--	--	--
FEB									
25...	2.2	3.1	.230	.000	350	60	--	--	--
MAR									
17...	2.9	3.5	.220	.000	280	40	--	--	--
APR									
23...	2.5	2.6	.170	.020	400	190	--	--	--
MAY									
28...	1.6	2.9	.090	--	500	60	40	5.2	--
JUN									
24...	1.7	3.0	.090	.030	560	70	--	--	--
JUL									
28...	1.7	2.6	.110	<.010	520	60	--	--	--
AUG									
20...	--	--	--	.020	250	50	--	--	--
SEP									
17...	1.5	2.6	.050	<.010	480	70	--	--	--

08406500 PECOS RIVER NEAR MALAGA, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)
NOV												
19...	1415	1	1	100	0	--	3	0	10	0	0	1
MAY												
28...	1430	2	2	200	100	500	0	0	10	10	0	1

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)
NOV											
19...	2	2	180	40	7	0	--	--	80	30	.2
MAY											
28...	3	1	260	60	1	3	100	100	110	40	.2

DATE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV											
19...	.0	3	1	2	2	0	0	--	--	40	30
MAY											
28...	.0	1	1	3	3	0	0	7000	8000	20	20

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO-GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO-GEN,TOT IN BOT-TOM MA-TERIAL (MG/KG AS N) (00603)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	BARIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS BA) (01008)	BERYL-LIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01013)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)
NOV										
19...	1415	7.5	9.0	198	100	1	200	0	6	3
MAY										
28...	1430	6.3	5.4	573	160	0	200	0	2	2

DATE	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	MOLYB-DENUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01063)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI) (01068)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G) (01148)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)
NOV									
19...	20	5	280	320	.01	0	30	0	8
MAY									
28...	20	5	5	330	.02	0	20	0	4

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
NOV									
19...	1415	<86	.7	<39	1.5	<38	1.4	.10	6.1
MAY									
28...	1430	<140	<.4	<71	1.2	<69	1.1	.13	8.6

08406500 PECOS RIVER NEAR MALAGA, NM -- Continued

WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLORDANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DIAZINON, TOTAL (UG/L) (39570)	DIELDRIN TOTAL (UG/L) (39380)
NOV									
19...	1415	.00	.00	.00	.00	.00	.00	.00	.00
MAY									
28...	1430	.00	.00	.00	.00	.00	.00	.00	.00

DATE	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALATHION, TOTAL (UG/L) (39530)	METHOXYCHLOR, TOTAL (UG/L) (39480)	METHYL PARATHION, TOTAL (UG/L) (39600)
NOV									
19...	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAY									
28...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL TRITHION, TOTAL (UG/L) (39790)	PARATHION, TOTAL (UG/L) (39540)	TOXAPHENE, TOTAL (UG/L) (39400)	TOTAL TRITHION (UG/L) (39786)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PERTHANE TOTAL (UG/L) (39034)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
NOV									
19...	.00	.00	0	.00	.00	.00	.00	.00	.00
MAY									
28...	.00	.00	0	.00	.00	.00	.00	.00	.00

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV			
19...	1415	14	3
MAY			
28...	1430	0	0

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
19...	1415	78	8.5	17	3.6	83
MAY						
28...	1430	21	27.0	37	2.1	80

08406500 PECOS RIVER NEAR MALAGA, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3150	5900	5930	5830	5620	4920		6800	7110	8720	6890	6870
2	3480	5870	5900	5730	5750	4920		7030	6960	8560	7100	6870
3	3980	5910	5900	5760	5620	4920		6580	6870	7950	7150	6870
4	4040	5980	5970	5760	5940	4910		6870	6960	7770	7500	7060
5	4270	6070	5910	5730	6300	4920		6820	6960	7890	7730	7060
6	4470	6180	5880	5830	6230	4920		6690	7010	8080	7670	7060
7	4610	6180	5840	5760	6270	4920		6870	7010	8350	7850	6870
8	5020	6180	5910	5700	6300	4930		7030	7110	8490	7730	6820
9	4670	6210	5910	5760	6300	4920		7030	7010	8490	7860	6730
10	4590	6250	6000	5820	6380	4920		7120	7270	5740	7920	6730
11	4820	6250	5980	5820	6340	4910		7210	7210	5770	7980	6760
12	5050	6290	5980	5890	6120	4910		7270	7430	6080	6760	6870
13	5070	6330	5970	5890	5710	4910		7320	7370	6520	3960	6960
14	5070	6360	5930	5750	5530	4910		7320	7480	6780	4040	7100
15	5120	6360	5900	5670	5620	4920		7270	7770	7010	4240	7100
16	5150	6330	5900	5720	5470	4930		7210	7890	7110	4360	7200
17	5300	6210	5900	5690	5450	5430		7500	8010	7210	4680	7310
18	5440	6180	5900	5690	5750	5470		7560	7950	7210	4640	7460
19	5680	6140	5830	5680	5940	5560		7530	8140	7270	4240	7520
20	5830	6180	5870	5650	6050	5440		7590	8280	7270	4290	7570
21	5710	6180	5940	5620	6190	5440		7700	8350	7370	4880	7570
22	5710	6180	5910	5780	6420	5590		7700	8210	7320	5000	7670
23	5770	6180	5860	5780	6300	5760		7830	8490	7430	5230	7790
24	5920	6140	5910	5720	6320	5710		7890	8420	7540	5480	7790
25	5920	---	5830	5820	6380	5720		7770	8630	7590	5570	7430
26	5680	5930	5920	5690	6340	5770		7830	8710	7650	5700	7250
27	5330	5930	5850	5660	6380	5780		7950	8560	7650	5860	7250
28	5440	5930	5840	5720	6280	5740		7540	8350	7890	6040	7080
29	5680	5970	5840	5720	---	5920		8010	8280	7590	6070	7080
30	5800	5970	5840	5710	---	6230		7950	8260	6640	6180	7180
31	5800	---	5840	5570	---	6550		7890	---	6820	6420	---
MEAN	5080	6130	5900	5740	6050	5320		7380	7740	7410	6030	7160

WTR YR 1981 MEAN 6360 MAX 8720 MIN 3150

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	12.0	10.0	8.5	9.0	13.5	16.0	23.0	28.0	27.0	30.5	23.0
2	23.0	12.0	10.5	9.5	10.0	17.0	17.0	21.0	25.0	25.5	28.0	23.0
3	23.0	12.0	9.5	10.0	9.0	15.5	17.5	23.5	28.0	29.0	27.0	28.0
4	21.5	13.5	10.0	8.5	9.5	13.5	15.0	23.0	23.0	28.0	26.5	24.0
5	21.5	14.0	10.5	9.0	9.0	13.0	13.5	21.5	23.5	27.0	28.0	25.0
6	21.5	14.0	11.5	10.0	10.0	13.0	15.0	20.0	25.0	30.0	31.0	24.5
7	21.0	14.5	13.5	10.0	10.0	14.0	16.5	20.5	---	28.0	26.0	24.0
8	21.5	14.0	12.0	10.0	10.0	13.0	18.0	24.0	29.5	27.0	25.0	22.0
9	21.0	15.5	10.5	9.0	12.0	13.0	20.5	19.0	27.0	25.0	25.0	22.0
10	21.0	13.0	10.0	9.0	11.5	12.0	20.0	20.0	29.0	29.0	25.0	22.5
11	22.0	15.0	10.0	9.0	9.0	10.5	18.5	20.0	29.0	27.0	25.0	24.5
12	20.0	16.5	9.0	8.5	8.5	10.5	19.0	23.5	29.0	27.0	24.5	22.0
13	20.5	17.0	10.0	8.5	9.5	10.5	19.0	25.0	25.5	30.0	26.0	25.0
14	21.5	15.0	10.0	8.0	9.5	13.0	18.0	20.0	25.5	30.0	26.0	25.0
15	21.0	14.0	10.0	9.5	10.0	13.0	15.0	21.0	26.5	29.5	26.5	24.0
16	19.0	10.0	10.0	8.5	10.5	14.0	15.0	20.0	26.5	27.0	25.5	24.0
17	19.0	9.0	10.0	7.0	11.0	12.0	17.0	20.0	26.0	27.0	28.0	22.0
18	18.0	8.5	10.0	6.0	12.0	15.5	17.0	22.0	25.0	31.0	27.0	24.0
19	18.0	9.0	10.0	6.0	11.0	13.5	18.0	18.5	24.0	27.0	25.5	19.5
20	17.0	9.0	7.0	8.0	12.0	14.0	23.0	21.0	29.0	29.0	25.0	22.0
21	17.0	9.5	6.0	7.0	14.0	12.0	19.5	24.0	24.0	29.5	28.0	24.0
22	16.0	11.0	6.0	9.0	12.0	13.0	20.0	25.0	30.0	27.5	24.5	20.0
23	16.5	10.5	7.0	9.0	11.0	17.0	17.5	21.5	29.0	---	25.0	20.0
24	15.0	10.0	8.0	9.5	13.0	16.0	17.0	21.0	27.5	25.5	28.0	24.5
25	15.0	---	7.0	10.0	12.0	14.5	17.5	23.0	24.0	25.0	27.0	23.0
26	16.0	8.0	9.0	12.0	12.0	15.0	18.5	28.5	28.0	25.5	27.0	22.5
27	15.5	8.0	10.0	10.5	13.0	16.0	25.0	24.0	26.0	27.0	29.0	21.5
28	14.0	8.0	8.5	10.0	13.5	16.5	25.0	26.0	29.5	27.0	28.5	24.0
29	12.0	8.5	10.0	11.5	---	14.0	23.5	24.5	28.0	26.5	27.0	23.5
30	13.0	9.0	9.0	10.0	---	15.0	22.5	22.0	26.0	26.0	25.5	21.0
31	12.0	---	9.0	10.0	---	15.0	---	24.0	---	26.5	29.0	---
MEAN	18.5	11.5	9.5	9.0	11.0	14.0	18.5	22.5	27.0	27.5	27.0	23.0

WTR YR 1981 MEAN 18.0 MAX 31.0 MIN 6.0

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM

LOCATION.--Lat 32°11'19", long 103°58'43", in SW¼SW¼NW¼ sec.27, T.24 S., R.29 E., Eddy County, Hydrologic Unit 13060011, on right bank 550 ft (170 m) upstream from Pierce Canyon Crossing, and 6.0 mi (9.7 km) southeast of Malaga, and at mile 425.7 (685.0 km).
DRAINAGE AREA.--19,260 mi^2 (49,880 km^2), approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1938 to September 1941, August 1951 to current year.
REVISED RECORDS.--WSP 898: 1938(M). WSP 1712: 1959.
GAGE.--Water-stage recorder. Datum of gage is 2,889.18 ft (880.622 m) National Geodetic Vertical Datum of 1929. July 1938 to September 1941 at datum 1.19 ft (0.363 m) higher.
REMARKS.--Water-discharge records good except those above 200 ft^3/s (5.7 m^3/s), which are fair. Flow regulated by many reservoirs and diversion dams. Diversions and ground-water withdrawals above station for irrigation of about 202,000 acres (820 km^2), 1959 determination.
AVERAGE DISCHARGE.--33 years (1939-41, 1952-81), 137 ft^3/s (3.880 m^3/s), 99,260 acre-ft/yr (122 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge determined, 65,000 ft^3/s (1,800 m^3/s) Aug. 23, 1966; maximum gage height, 31.6 ft (9.63 m) Aug. 23, 1966, from floodmarks; minimum discharge, 0.54 ft^3/s (0.015 m^3/s) May 30, 1965.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 859 ft^3/s (24.3 m^3/s) Aug. 12, gage height, 4.14 ft (1.262 m); minimum, 10 ft^3/s (0.28 m^3/s) part of each day Apr. 9-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	77	80	77	69	53	26	41	48	20	27	30
2	117	80	79	76	69	55	21	46	49	20	22	30
3	87	72	77	76	69	53	16	49	43	24	22	30
4	81	73	75	76	64	48	12	43	38	27	21	31
5	75	75	74	76	57	52	11	39	34	30	19	31
6	72	73	75	76	55	56	11	45	32	23	19	34
7	73	72	77	76	55	49	12	48	35	19	21	42
8	84	73	82	72	55	46	11	48	34	17	21	45
9	81	73	82	67	53	58	11	42	34	21	20	42
10	74	70	80	65	54	93	11	35	35	356	19	44
11	71	71	78	64	54	174	11	32	32	203	21	41
12	75	71	81	65	64	146	11	33	27	78	207	37
13	71	69	81	66	65	111	11	35	23	40	390	36
14	71	68	81	69	66	91	18	36	21	26	137	35
15	84	68	81	69	66	79	131	36	24	21	79	34
16	74	74	81	69	69	74	113	31	20	20	55	32
17	67	82	78	71	69	73	57	26	18	22	45	31
18	62	83	78	71	65	68	43	28	18	22	47	29
19	59	77	78	72	53	67	43	30	19	20	69	28
20	72	75	76	73	50	63	53	30	17	18	69	29
21	63	76	74	72	49	63	44	28	17	17	50	30
22	62	76	73	72	46	63	40	25	20	20	41	28
23	64	77	74	71	45	60	42	22	21	19	39	26
24	66	76	76	71	44	50	46	19	17	18	37	27
25	71	85	76	72	43	52	47	23	15	19	37	43
26	81	92	76	72	44	53	42	24	16	18	37	52
27	87	96	76	72	44	53	41	20	20	16	36	41
28	87	87	76	72	49	54	41	19	19	20	36	38
29	68	81	78	72	---	54	42	24	18	36	35	38
30	75	81	79	71	---	44	43	28	18	44	35	37
31	73	---	78	69	---	32	---	34	---	34	33	---
TOTAL	2384	2303	2410	2212	1585	2087	1061	1019	782	1288	1746	1051
MEAN	76.9	76.8	77.7	71.4	56.6	67.3	35.4	32.9	26.1	41.5	56.3	35.0
MAX	137	96	82	77	69	174	131	49	49	356	390	52
MIN	59	68	73	64	43	32	11	19	15	16	19	26
AC-FT	4730	4570	4780	4390	3140	4140	2100	2020	1550	2550	3460	2080

CAL YR 1980 TOTAL 29733 MEAN 81.2 MAX 6640 MIN 10 AC-FT 58980
WTR YR 1981 TOTAL 19928 MEAN 54.6 MAX 390 MIN 11 AC-FT 39530

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM -- Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected 0.2 mi (0.3 km) downstream from discharge station.

PERIOD OF RECORD.--Water years 1938-41, 1952 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1938 to September 1941, October 1951 to current year.
WATER TEMPERATURES: October 1952 to current year.

REMARKS.--No appreciable inflow between discharge station and sampling point except during periods of heavy local rains.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 66,000 micromhos Aug. 1, 2, 1966; minimum daily, 433 micromhos Sept. 21, 1941.
WATER TEMPERATURES: Maximum 35.0°C July 6, 1968; minimum, 1.5°C Jan. 10, 1977.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 20,400 micromhos June 24; minimum daily, 5,250 micromhos Oct. 1.
WATER TEMPERATURES: Maximum, 30.5°C July 10, Aug. 6, 31; minimum 4.5°C Dec. 22.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT										
02...	1200	--	6200	7.6	--	--	--	--	960	830
NOV										
20...	0945	75	8900	8.4	5.0	7.5	3.5	12.8	2200	2100
DEC										
17...	1400	78	8600	8.6	27.0	11.0	--	--	2000	1900
JAN										
26...	1400	72	10000	8.6	20.0	11.0	--	--	2000	1900
FEB										
25...	1500	43	10500	8.0	29.0	16.0	--	--	1900	1900
MAR										
17...	1330	73	9490	8.4	25.0	16.0	--	--	1800	--
APR										
23...	1500	43	11600	8.0	16.0	16.0	--	--	2100	--
MAY										
28...	1215	19	16000	8.4	31.0	26.5	9.0	15.0	2500	--
JUN										
24...	1430	16	20400	7.9	38.0	29.0	--	--	2700	--
JUL										
28...	1500	16	16400	8.1	28.0	26.0	--	--	2400	--
AUG										
20...	1500	68	7800	8.5	30.0	28.0	--	--	1400	--
SEP										
17...	1330	31	12900	8.1	21.0	23.0	--	--	2200	--

DATE	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT									
02...	--	220	99	1100	15	44	130	--	720
NOV									
20...	--	520	220	1300	12	47	--	140	1600
DEC									
17...	--	490	200	1300	13	26	--	150	1500
JAN									
26...	--	490	200	1400	13	35	--	--	1700
FEB									
25...	--	420	210	1500	15	44	--	29	1800
MAR									
17...	1700	420	180	1400	14	36	--	81	1500
APR									
23...	2100	490	220	1900	18	49	--	49	1800
MAY									
28...	2400	560	270	2700	23	10	--	110	2000
JUN									
24...	2600	590	300	3300	28	110	--	71	2200
JUL									
28...	2300	540	260	3100	27	83	--	100	2100
AUG									
20...	1300	320	140	1400	16	33	--	98	1200
SEP									
17...	2100	520	230	2000	18	59	--	120	1900

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)
OCT									
02...	1700	.4	--	12	--	3970	--	--	--
NOV									
20...	2400	.4	--	6.4	6370	6190	1.9	1.9	.190
DEC									
17...	2200	.7	--	14	--	5820	--	--	--
JAN									
26...	2300	.7	--	15	--	6230	--	--	--
FEB									
25...	2900	.5	--	.0	--	6890	--	--	--
MAR									
17...	2400	.7	--	.5	--	5990	--	.21	--
APR									
23...	3400	.7	--	3.0	--	7890	--	--	--
MAY									
28...	4700	.7	.10	12	11200	10300	.52	.54	.090
JUN									
24...	5800	.7	--	11	--	12400	--	--	--
JUL									
28...	4800	.7	--	14	--	11000	--	--	--
AUG									
20...	2200	.5	--	8.2	--	5360	--	--	--
SEP									
17...	3400	.9	--	15	--	8200	--	--	--

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
OCT									
02...	--	--	--	--	310	30	--	--	--
NOV									
20...	.100	1.9	4.0	.050	--	50	40	4.4	3.9
DEC									
17...	--	--	--	--	530	50	--	--	--
JAN									
26...	--	--	--	--	560	60	--	--	--
FEB									
25...	--	--	--	--	540	20	--	--	--
MAR									
17...	--	--	--	--	500	50	--	--	--
APR									
23...	--	--	--	--	670	240	--	--	--
MAY									
28...	.070	1.7	2.3	.080	1000	60	60	6.0	--
JUN									
24...	--	--	--	--	2700	80	--	--	--
JUL									
28...	--	--	--	--	900	40	--	--	--
AUG									
20...	--	--	--	--	460	50	--	--	--
SEP									
17...	--	--	--	--	810	60	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)
NOV												
20...	0945	1	1	100	100	--	3	0	20	0	2	1
MAY												
28...	1215	2	2	200	100	1000	0	0	20	20	0	2

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)
NOV											
20...	2	2	190	50	8	1	--	--	90	40	.1
MAY											
28...	2	0	240	60	2	2	110	110	100	60	.8

DATE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV											
20...	.0	4	1	2	2	0	0	--	--	20	10
MAY											
28...	.2	1	2	3	3	0	0	9300	8100	30	30

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO-GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO-GEN,TOT IN BOT-TOM MA-TERIAL (MG/KG AS N) (00603)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	BARIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS BA) (01008)	BERYL-LIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01013)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)
NOV										
20...	0945	2.7	2.7	87	110	2	150	0	6	3
MAY										
28...	1215	12	13	366	310	0	100	0	0	2

DATE	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	MOLYB-DENUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01063)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI) (01068)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G) (01148)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)
NOV									
20...	20	4	250	390	.01	0	20	0	8
MAY									
28...	20	3	5	460	.02	0	10	0	4

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
NOV									
20...	0945	<120	<.4	<54	1.5	<51	1.4	.15	8.1
MAY									
28...	1215	<240	<.4	<140	.8	<130	.8	.16	7.2

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM -- Continued

WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLORDANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DIAZINON, TOTAL (UG/L) (39570)	DIELDRIN TOTAL (UG/L) (39380)
NOV									
20...	0945	.00	.00	.00	.00	.00	.00	.00	.00
MAY									
28...	1215	.00	.00	.00	.00	.00	.00	.00	.00

DATE	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALATHION, TOTAL (UG/L) (39530)	METHOXYCHLOR, TOTAL (UG/L) (39480)	METHYL PARATHION, TOTAL (UG/L) (39600)
NOV									
20...	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAY									
28...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL TRITHION, TOTAL (UG/L) (39790)	PARATHION, TOTAL (UG/L) (39540)	TOXAPHENE, TOTAL (UG/L) (39400)	TOTAL TRITHION (UG/L) (39786)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PERTHANE TOTAL (UG/L) (39034)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
NOV									
20...	.00	.00	0	.00	.00	.00	.00	.00	.00
MAY									
28...	.00	.00	0	.00	.00	.00	.00	.00	.00

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV			
20...	0945	2	1
MAY			
28...	1215	0	5

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
20...	0945	75	7.5	30	6.1	80
MAY						
28...	1215	19	26.5	33	1.7	85

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5250	8830	8690	9190	9710	11300	11400	13500	13600	18600	13200	11100
2	5860	8900	8830	9190	9280	11000	12500	11900	13300	18800	13000	11300
3	6440	8820	8680	9190	9120	11300	13500	12200	12200	18500	13200	11800
4	7110	9460	8910	9270	8950	11500	14500	11900	12500	18100	13800	11900
5	7570	8970	8930	9110	9720	12100	16100	11600	12500	17700	14100	12000
6	8090	9050	8910	9200	10300	10500	17400	12200	12400	17200	14700	12300
7	8280	9290	8910	9190	10100	10900	16800	12300	12500	17500	14700	12200
8	8280	9460	8930	9190	10500	11100	18000	12200	13300	18000	14600	11900
9	8020	9550	8910	9440	10200	10400	17600	12400	12400	18600	14900	12300
10	8270	9550	8760	9530	12000	9720	18000	12700	12700	17600	14900	11700
11	8680	9370	8690	9360	12200	9540	18800	12700	13300	8030	15100	11400
12	8270	9460	8690	9360	9360	8320	19400	12800	13600	7830	14900	11400
13	8470	9630	8690	9450	9360	7860	19300	13200	13900	9150	6580	11500
14	8540	9550	8760	9630	10100	7690	19400	13000	13900	9990	5290	11600
15	8900	9460	8830	9630	9450	8660	19500	13600	14500	10900	5790	12000
16	8610	9460	8690	9720	9120	8240	12700	13500	15900	11500	6610	12400
17	8610	9720	8760	9110	9290	8600	9820	14100	16100	12500	7730	12400
18	8750	9300	8760	9040	9130	9630	11200	14200	15900	13100	8310	12700
19	9130	8980	8910	9040	9810	8960	12100	15100	15900	12700	8820	12900
20	9460	8900	8830	9040	9540	8960	12400	15100	16400	13100	7840	12900
21	9130	8900	8630	9120	10000	9200	12300	15900	16500	13300	7720	13200
22	9290	8970	8490	9210	11700	10800	11900	15700	16800	13900	7730	13600
23	9720	9210	8770	9290	10300	9280	11900	15600	17500	14400	8210	13300
24	9810	9130	8700	9450	11100	9040	12100	15600	18300	14900	8810	13600
25	9210	---	8760	9450	10600	9280	12000	15800	17500	15000	9150	14000
26	9290	8970	8700	9200	10700	9450	12000	15300	17800	15400	9500	13000
27	9370	8750	8830	9370	10700	9720	12100	15300	18300	15500	9810	12800
28	9370	8620	8830	9370	10700	9630	12400	16200	17900	15200	10100	12700
29	8400	8690	8930	9450	---	9900	12900	16400	17600	14300	10300	12900
30	8480	8680	8770	9630	---	9630	12400	17800	17400	14000	10400	12600
31	8750	---	8760	9370	---	9550	---	16800	---	11800	10700	---
MEAN	8430	9160	8780	9320	10100	9730	14400	14100	15100	14400	10700	12400

WTR YR 1981 MEAN 11400 MAX 19500 MIN 5250

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	12.0	---	8.0	8.0	13.5	16.0	24.0	29.0	27.5	30.0	25.0
2	22.0	12.0	---	9.0	8.5	17.0	16.5	22.0	27.0	27.0	30.0	24.5
3	20.5	12.0	---	9.0	8.5	16.0	18.0	21.5	28.0	29.0	29.0	27.0
4	22.0	13.0	---	8.0	8.5	13.5	14.0	22.0	24.5	29.0	29.0	25.0
5	22.0	14.0	---	9.0	8.0	11.5	12.5	22.0	25.5	28.0	29.0	26.0
6	22.0	14.0	---	10.0	8.5	12.5	13.5	21.0	26.5	30.0	30.5	25.0
7	21.5	15.0	---	9.0	10.0	13.5	16.0	21.5	27.0	28.5	28.0	25.0
8	22.0	14.0	---	10.0	9.0	12.5	19.0	24.0	30.0	28.5	27.0	23.5
9	22.0	15.0	---	8.0	12.0	12.0	19.0	23.0	28.5	27.0	26.5	22.0
10	21.5	13.0	---	8.0	11.0	10.5	20.0	20.5	30.0	30.5	27.0	22.0
11	20.5	14.0	---	8.0	9.0	10.5	19.0	20.0	30.0	27.5	27.0	24.0
12	20.0	17.0	---	8.0	7.5	10.0	19.0	23.0	29.0	27.5	26.0	22.5
13	20.0	17.0	---	8.0	8.5	10.5	20.0	26.0	27.0	29.5	25.5	26.0
14	22.0	15.0	---	7.0	9.0	12.0	18.5	20.5	27.0	29.5	26.0	26.0
15	22.0	13.5	---	9.0	10.0	14.0	15.5	21.0	26.5	30.0	27.0	25.0
16	20.0	9.0	10.0	8.5	10.5	13.5	15.0	20.5	25.5	28.0	27.5	24.0
17	19.0	8.0	10.0	6.0	11.0	12.0	17.0	20.5	25.0	28.0	30.0	22.5
18	18.5	7.5	10.0	5.0	12.0	16.0	17.5	22.0	24.0	29.0	27.0	21.0
19	18.0	8.5	10.0	5.0	10.5	13.0	18.0	19.5	25.0	28.0	27.0	21.0
20	16.5	8.5	6.0	7.0	12.0	13.5	22.0	22.0	26.0	30.0	26.0	22.5
21	17.0	9.0	5.0	7.0	13.5	12.0	20.0	24.0	25.0	30.0	25.0	23.5
22	16.5	10.0	4.5	8.0	12.0	12.0	20.5	25.0	28.0	28.5	26.0	22.0
23	16.5	10.5	6.0	8.5	10.0	16.0	18.0	22.0	29.0	---	27.0	21.5
24	15.0	9.5	7.5	10.0	13.0	16.0	17.0	22.0	28.0	27.0	28.0	23.0
25	15.0	---	6.0	9.0	12.0	15.0	18.0	22.5	28.5	26.5	28.0	24.0
26	16.0	7.0	9.0	12.0	13.0	15.0	20.0	28.0	29.0	27.0	28.5	24.0
27	15.5	7.0	8.0	10.0	13.0	16.0	26.0	26.0	29.0	28.0	29.0	23.0
28	14.0	8.0	8.0	10.0	13.5	17.0	22.0	27.0	28.0	27.0	28.0	24.0
29	12.0	8.5	9.0	10.0	---	15.0	23.5	25.0	28.0	25.5	27.0	23.0
30	12.0	9.0	8.0	10.0	---	15.0	24.0	24.0	27.0	27.0	27.0	22.0
31	12.0	---	8.0	10.0	---	15.5	---	25.0	---	27.5	30.5	---
MEAN	18.5	11.5	8.0	8.5	10.5	13.5	18.5	23.0	27.5	28.0	27.5	23.5

WTR YR 1981 MEAN 18.5 MAX 30.5 MIN 4.5

08407500 PECOS RIVER AT RED BLUFF, NM
(National stream-quality accounting network station)

LOCATION.--Lat 32°04'30", long 104°02'21", in SW¼NW¼NE¼ sec.1, T.26 S., R.28 E., Eddy County, Hydrologic Unit 13060011, 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 411.2 (661.6 km). Water-quality sampling site 1.4 (2.3 km) downstream at mile 409.8 (659.4 km).
DRAINAGE AREA.--19,540 mi^2 (50,600 km^2), approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year.
GAGE.--Water-stage recorder. Datum of gage is 2,850.05 ft (868.695 m) National Geodetic Vertical Datum of 1929.
REMARKS.--Water-discharge records good. Flow regulated by many reservoirs and diversion dams. Diversions and ground-water withdrawals above station for irrigation of about 202,000 acres (820 km^2), 1959 determination.
AVERAGE DISCHARGE.--44 years, (1938-81), 169 ft^3/s (4.786 m^3/s), 122,400 acre-ft/yr (151 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 111,000 ft^3/s (3,140 m^3/s) Aug. 23, 1966, gage height, 33.32 ft (10.156 m), from rating curve extended above 30,000 ft^3/s (850 m^3/s) on basis of slope-area measurement of peak flow; minimum, 0.19 ft^3/s (0.005 m^3/s) Aug. 1, 1966.
EXTREMES OUTSIDE PERIOD OF RECORD.--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 stations 08404000, 08406500.)
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,770 ft^3/s (50.1 m^3/s) Aug. 13, gage height, 7.46 ft. (2.274 m); minimum, 12 ft^3/s (0.34 m^3/s) Apr. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	73	85	78	71	55	28	43	37	18	39	35
2	132	84	82	78	71	56	22	43	50	20	31	30
3	106	76	84	78	72	51	18	52	50	20	26	30
4	95	73	81	77	65	45	16	49	43	27	27	31
5	89	76	81	78	58	48	14	42	39	44	23	34
6	81	76	81	80	57	54	13	43	35	32	18	31
7	78	75	85	80	56	49	13	47	35	27	50	39
8	85	76	85	80	56	43	13	50	37	22	39	45
9	88	76	85	70	54	53	13	46	39	85	21	47
10	81	75	82	66	55	76	13	39	40	175	19	43
11	77	75	81	69	55	154	12	35	40	328	22	43
12	78	75	78	73	69	171	12	32	36	140	55	40
13	76	73	81	76	67	140	13	33	31	67	884	37
14	75	70	82	80	69	112	103	33	26	39	252	34
15	81	70	82	77	71	98	61	35	26	30	158	31
16	80	78	82	76	71	91	184	33	26	27	117	31
17	72	82	81	75	71	86	82	27	22	30	56	30
18	66	88	82	78	65	80	53	27	20	31	115	28
19	60	86	81	81	53	80	48	30	20	30	67	27
20	71	81	80	81	50	75	56	31	20	27	80	26
21	71	82	78	78	49	76	55	30	18	24	66	28
22	64	84	77	76	47	75	45	28	19	24	52	28
23	65	82	78	75	46	72	45	23	22	27	45	25
24	67	81	80	75	45	62	46	22	22	24	44	24
25	69	93	81	75	43	65	53	19	18	24	43	30
26	81	96	81	75	44	66	46	22	16	25	42	50
27	84	105	80	75	47	67	45	22	18	21	41	46
28	92	95	80	73	52	71	44	17	20	323	40	38
29	77	88	81	73	---	69	43	21	20	135	40	37
30	72	85	81	72	---	51	44	24	18	104	38	37
31	78	---	80	73	---	36	---	28	---	53	37	---
TOTAL	2471	2429	2518	2351	1629	2327	1253	1026	863	2003	2587	1035
MEAN	79.7	81.0	81.2	75.8	58.2	75.1	41.8	33.1	28.8	64.6	83.5	34.5
MAX	132	105	85	81	72	171	184	52	50	328	884	50
MIN	60	70	77	66	43	36	12	17	16	18	18	24
AC-FT	4900	4820	4990	4660	3230	4620	2490	2040	1710	3970	5130	2050

CAL YR 1980 TOTAL 32798.3 MEAN 89.6 MAX 10300 MIN 7.4 AC-FT 65060
WTR YR 1981 TOTAL 22492.0 MEAN 61.6 MAX 884 MIN 12 AC-FT 44610

08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected 2 mi (3.2 km) downstream from discharge station.
PERIOD OF RECORD.--Water years 1937 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1937 to current year.
WATER TEMPERATURES: October 1952 to current year.
REMARKS.--No appreciable inflow between discharge station and sampling point except during periods of heavy local rains.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 51,400 micromhos June 20, 1972; minimum daily, 268 micromhos Sept. 19, 1946.
WATER TEMPERATURES: Maximum, 36.0°C July 31, 1966, July 13, 1970; minimum, 1.0°C Jan. 10, 11, 1962, Jan. 13, 1963, Dec. 19, 1980.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 20,500 micromhos July 11; minimum daily, 3,690 micromhos Aug. 19.
WATER TEMPERATURES: Maximum, 34.0°C July 20; minimum, 1.0°C Dec. 19.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT										
24...	1030	67	13000	7.3	19.0	15.0	1.1	8.7	--	--
NOV										
20...	1300	81	10100	8.4	12.0	7.5	3.1	11.8	2100	2000
DEC										
17...	1100	81	11200	8.3	27.5	9.0	13	7.6	2100	2000
JAN										
26...	1100	75	11200	7.9	20.0	9.5	3.4	15.4	2000	1800
FEB										
24...	1330	45	13200	8.2	31.0	14.0	10	14.6	2000	--
MAR										
17...	1000	86	9170	8.5	23.0	14.0	14	11.9	1700	--
APR										
23...	1200	45	13300	8.2	14.0	17.0	33	9.8	2200	--
MAY										
28...	0820	17	17700	8.2	26.0	24.5	8.6	7.2	2600	--
JUN										
24...	1000	22	15800	8.1	36.0	28.0	2.0	7.2	2600	--
JUL										
28...	1030	323	14500	8.0	24.0	26.0	45	4.8	2200	--
AUG										
20...	1100	80	8000	8.4	36.0	27.0	13	9.6	1500	--
SEP										
17...	1000	30	12400	7.9	19.0	21.0	1.9	--	2100	--

DATE	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT										
24...	--	--	--	--	--	--	160	--	--	--
NOV										
20...	--	490	220	1600	15	59	--	140	1500	2700
DEC										
17...	--	500	210	1700	16	42	--	160	1600	2700
JAN										
26...	--	470	200	1700	17	42	--	150	1700	2900
FEB										
24...	--	430	230	2400	23	58	--	52	1800	3700
MAR										
17...	1500	390	180	1400	15	32	--	170	1600	2200
APR										
23...	2200	500	240	2200	20	57	--	46	1400	4100
MAY										
28...	2500	560	280	3200	28	31	--	82	2200	5200
JUN										
24...	2600	570	290	3200	27	92	--	64	2200	5800
JUL										
28...	2200	510	230	3000	28	68	--	46	2000	4500
AUG										
20...	1400	340	150	1200	14	33	--	97	1200	2100
SEP										
17...	2100	480	230	2100	20	57	--	96	1900	3300

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)
OCT									
24...	--	--	--	--	--	1.3	1.5	.780	.500
NOV									
20...	.3	--	6.0	8320	6670	1.7	1.7	1.30	.300
DEC									
17...	.6	--	11	6920	6870	1.9	1.9	.100	.100
JAN									
26...	.7	--	13	7250	7120	1.8	.18	.190	.110
FEB									
24...	.2	--	20	8710	8670	.27	.30	.120	.110
MAR									
17...	.7	--	.7	6160	5910	.34	.32	.150	.150
APR									
23...	.7	--	1.1	9150	8530	.02	.03	.110	.110
MAY									
28...	.7	.10	4.3	12200	11500	.03	.07	.060	.130
JUN									
24...	.8	--	3.5	12700	12200	.07	.09	.180	.200
JUL									
28...	.6	--	3.8	9740	10300	.24	.16	.900	.460
AUG									
20...	.5	--	6.1	5230	5090	.12	.12	.140	<.060
SEP									
17...	.9	--	6.0	8630	8130	.26	.21	.120	.410

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
OCT									
24...	.52	2.6	.040	--	--	--	9.0	--	--
NOV									
20...	.40	3.4	.040	--	40	40	--	4.5	2.8
DEC									
17...	1.4	3.4	.090	--	--	--	11	--	--
JAN									
26...	1.3	3.3	.190	--	--	--	13	--	--
FEB									
24...	2.4	2.8	.190	--	40	110	--	3.3	1.6
MAR									
17...	2.5	2.9	.180	--	--	--	15	--	--
APR									
23...	2.7	2.8	.170	--	--	--	22	--	--
MAY									
28...	1.0	1.1	.080	1000	70	60	--	4.6	--
JUN									
24...	1.4	1.7	.070	--	--	--	10	--	--
JUL									
28...	.90	2.0	.150	--	--	--	8.7	--	--
AUG									
20...	1.1	1.3	.030	--	30	20	--	6.8	.4
SEP									
17...	1.2	1.6	.050	--	--	--	6.6	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)
NOV												
20...	1300	2	1	200	100	--	3	0	0	0	1	1
FEB												
24...	1330	1	1	200	100	--	0	1	20	10	1	0
MAY												
28...	0820	3	2	300	200	1000	0	0	20	20	0	1
AUG												
20...	1100	3	2	100	0	--	0	0	10	10	1	0

RIO GRANDE BASIN
08407500 PECOS RIVER AT RED BLUFF, NM -- Continued
WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)
NOV											
20...	4	1	160	40	7	2	--	--	70	40	.2
FEB											
24...	3	2	770	40	1	2	--	--	190	110	.2
MAY											
28...	8	0	560	70	1	2	110	110	110	60	2.4
AUG											
20...	3	2	550	30	8	3	--	--	130	20	.3

DATE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV											
20...	.0	2	0	2	2	0	0	--	--	20	20
FEB											
24...	.0	0	0	2	2	0	0	--	--	40	40
MAY											
28...	.0	2	2	1	2	0	0	9200	8300	30	30
AUG											
20...	.0	3	3	1	1	0	0	--	--	40	30

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO-GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO-GEN,TOT IN BOT-TOM MA-TERIAL (MG/KG AS N) (00603)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	BARIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS BA) (01008)	BERYL-LIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01013)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)
NOV										
20...	1300	.0	2.5	120	170	1	20	0	6	2

DATE	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	MOLYB-DENUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01063)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI) (01068)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G) (01148)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)
NOV									
20...	20	5	260	290	.01	0	30	0	14

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L) (80020)
OCT										
24...	1030	<160	.4	<83	2.1	<80	2.0	.23	--	8.3
NOV										
20...	1300	<130	<.4	63	1.3	59	1.2	.14	7.3	--
MAY										
28...	0820	<340	1.1	<170	1.7	<170	1.6	.30	8.3	--

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-AZINON, TOTAL (UG/L) (39570)	DI-ELDRIN TOTAL (UG/L) (39380)
NOV									
20...	--	ND	ND	ND	ND	ND	ND	ND	ND
20...	1300	.00	.00	.00	.00	.00	.00	.01	.00

DATE	ENDO-SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METHYL PARA-THION, TOTAL (UG/L) (39600)
NOV									
20...	--	ND	ND	ND	ND	ND	ND	ND	ND
20...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL TRI-THION, TOTAL (UG/L) (39790)	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PER-THANE TOTAL (UG/L) (39034)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
NOV									
20...	ND	ND	ND	ND	--	--	--	--	--
20...	.00	.00	0	.00	.00	.00	.00	.00	.00

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
24...	1030	0	0
NOV			
20...	1300	2	2
DEC			
17...	1100	2	2
JAN			
26...	1100	0	0
FEB			
24...	1330	9	8
MAR			
17...	1000	13	23
APR			
23...	1200	40	64
MAY			
28...	0820	3	10
JUN			
24...	1000	0	12
JUL			
28...	1030	310	1200
AUG			
20...	1100	49	16
SEP			
17...	1000	0	150

RIO GRANDE BASIN
08407500 PECOS RIVER AT RED BLUFF, NM -- Continued
WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 20,80		MAY 28,81		JUN 24,81		JUL 28,81		AUG 20,81		SEP 17,81	
TIME	1300		0820		1000		1030		1100		1000	
TOTAL CELLS/ML	23000		50000		75000		44000		270000		6800	
DIVERSITY: DIVISION	0.7		1.4		0.6		1.1		0.4		0.9	
.CLASS	0.7		1.4		0.6		1.1		0.4		0.9	
..ORDER	1.1		2.1		1.1		1.8		1.0		1.2	
...FAMILY	1.2		2.1		1.1		1.8		1.0		1.4	
....GENUS	1.3		2.1		1.2		1.8		1.3		2.7	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)												
.BACILLARIOPHYCEAE												
..BACILLARIALES												
...NITZSCHIACEAE												
....NITZSCHIA	620	3	1800	4	--	-	*	0	3400	1	72	1
..BIDDULPHIALES												
...CHAETOCERACEAE												
....CHAETOCEROS	--	-	23000#	46	400	1	10000#	23	*	0	--	-
..EUPODISCALES												
...COSCINODISCACEAE												
....CYCLOTELLA	19000#	80	3000	6	7000	9	6000	14	*	0	43	1
....MELOSIRA	--	-	--	-	--	-	--	-	*	0	--	-
..NAVICULALES												
...CYMBELLACEAE												
....AMPHORA	--	-	--	-	--	-	*	0	--	-	--	-
...NAVICULACEAE												
....AMPHIPLEURA	--	-	--	-	--	-	350	1	--	-	--	-
....GYROSIGMA	--	-	--	-	--	-	--	-	--	-	*	0
....NAVICULA	150	1	500	1	*	0	--	-	*	0	--	-
....PLEUROSIGMA	--	-	--	-	--	-	--	-	*	0	--	-
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHLOROCOCCACEAE												
....TETRAEDRON	--	-	--	-	--	-	--	-	*	0	--	-
...DICTYOSPHAERIACEAE												
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	--	-	300	4
...OOCYSTACEAE												
....ANKISTRODESMUS	460	2	2800	6	--	-	--	-	*	0	130	2
....CHODATELLA	--	-	--	-	--	-	--	-	*	0	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-	*	0	--	-
....OOCYSTIS	620	3	500	1	1000	1	1200	3	1700	1	130	2
....SELENASTRUM	--	-	--	-	*	0	--	-	*	0	--	-
...SCENEDESMACEAE												
....CRUCIGENIA	620	3	--	-	--	-	--	-	--	-	--	-
....GLOEOACTINIUM	--	-	--	-	--	-	--	-	--	-	300	4
....SCENEDESMUS	620	3	--	-	--	-	--	-	2300	1	320	5
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	1400	6	500	1	*	0	*	0	2900	1	*	0
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONADALES												
...CRYPTOCHRYSIDACEAE												
....CHROOMONAS	150	1	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....AGMENELLUM	--	-	--	-	2400	3	--	-	5700	2	1400#	20
....ANACYSTIS	--	-	1000	2	5300	7	--	-	21000	8	2600#	38
....GOMPHOSPHAERIA	--	-	--	-	--	-	--	-	--	-	1200#	17
..NOSTOCALES												
...HAMMATOIDEACEAE												
....RAPHIDIOPSIS	--	-	--	-	--	-	--	-	2300	1	--	-
...NOSTOCACEAE												
....ANABAENOPSIS	--	-	--	-	--	-	1400	3	--	-	--	-
..OSCILLATORIALES												
...OSCILLATORIACEAE												
....LYNGBYA	--	-	--	-	58000#	78	--	-	5200	2	--	-
....OSCILLATORIA	--	-	16000#	32	--	-	25000#	56	220000#	81	220	3
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	--	-	--	-	*	0	--	-	--	-	120	2
....TRACHELOMONAS	--	-	--	-	--	-	--	-	*	0	--	-
PYRRHOPHYTA (FIRE ALGAE)												
.DINOPHYCEAE												
..DINOKONTAE												
...GLENODINIACEAE												
....GLENODINIUM	--	-	760	2	*	0	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
24...	1030	67	15.0	44	8.0	81
NOV						
20...	1300	81	7.5	33	7.2	92
DEC						
17...	1100	81	9.0	49	11	98
JAN						
26...	1100	75	9.5	79	16	96
FEB						
24...	1330	45	14.0	58	7.0	99
MAR						
17...	1000	86	14.0	82	19	98
APR						
23...	1200	45	17.0	68	8.3	90
MAY						
28...	0820	17	24.5	30	1.4	97
JUN						
24...	1000	22	28.0	23	1.4	96
JUL						
28...	1030	323	26.0	260	227	95
AUG						
20...	1100	80	27.0	76	16	98
SEP						
17...	1000	30	21.0	138	11	90

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8430	10600	10100	10300	10700	12300	11600	13400	17900	19500	7680	10900
2	9620	10900	10100	10100	12200	12100	11600	13200	17300	19600	10500	11300
3	11900	10900	10100	10100	11500	12400	12100	13700	17200	20000	13600	11500
4	11600	11100	10200	10200	10800	12400	13000	13800	17800	20000	5700	11600
5	11500	11000	10200	10200	10600	12400	13400	13400	17600	20000	13500	11800
6	11900	11200	10200	10500	10600	12600	13000	13600	16000	20000	13200	11900
7	12100	11300	10300	10200	10500	13300	14000	13900	15200	18700	11400	12200
8	12300	11300	10300	10200	11000	13400	14700	13400	14400	19400	13600	12500
9	12000	11400	10300	10500	11500	12000	18000	13700	14500	5390	13800	12700
10	11700	11400	10300	10300	11500	12400	18100	14000	14500	12000	13500	12800
11	11700	11700	10500	10400	11700	10100	12500	17200	15100	20500	13100	12800
12	11800	11300	10100	10500	11700	8550	12500	13400	15200	11300	10100	12700
13	12200	11400	10000	10900	13000	9340	19200	13400	14700	9280	14900	12800
14	11700	11400	10000	10900	11500	8530	18200	13800	15100	8530	8000	12600
15	11800	11500	10000	10600	11000	8530	19300	14500	15100	8510	5660	12500
16	11800	11700	10300	10600	10600	8530	19300	14600	15100	8580	3900	12500
17	11600	11400	10000	10400	10700	9170	13300	14400	15100	8800	4940	12600
18	11600	11100	10100	10400	10400	9080	14200	14800	15400	13700	6910	12500
19	11700	11200	9900	10800	10400	9430	11900	14800	15600	10000	3690	12600
20	11900	10900	9900	10200	10400	11000	12500	15100	15900	10500	8290	12900
21	12000	10600	10200	10300	10600	10400	17300	15100	16000	11400	9030	13200
22	11900	10600	10200	10300	11800	10300	12900	15700	16400	12100	9290	13300
23	12200	10700	10000	10200	11100	10100	13000	15900	16600	13700	9100	13600
24	12000	10600	9900	10300	11500	10700	13100	16000	17000	10900	8870	14600
25	12300	10500	9900	10400	12200	10600	12700	16200	17600	14600	8990	14200
26	12200	10700	10000	10400	12000	10400	12700	16700	18200	14600	9060	14100
27	11800	10300	9900	10500	12300	10600	12600	16800	18600	4070	9420	14500
28	11400	10200	9900	10700	12000	10700	12600	17100	18800	14600	9810	14500
29	11100	10300	10000	10600	---	10800	12800	17400	18800	14700	10000	14300
30	11400	10000	10000	10500	---	10700	12900	17700	19000	10000	10500	14200
31	11000	---	10000	10600	---	10800	---	17600	---	8290	10800	---
MEAN	11600	11000	10100	10400	11300	10800	14200	15000	16400	13300	9700	12900

WTR YR 1981 MEAN 12200 MAX 20500 MIN 3690

08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

WATER-QUALITY RECORDS

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.5	14.5	9.5	10.0	10.0	17.5	19.5	24.0	28.0	29.5	31.5	26.5
2	22.5	14.5	10.0	10.0	10.0	17.5	20.0	24.5	28.0	31.0	32.5	28.5
3	23.5	15.0	10.0	9.5	9.5	17.0	18.0	26.0	29.0	31.0	32.0	27.5
4	24.5	15.5	10.5	9.5	9.0	15.0	18.5	27.0	28.0	30.0	31.0	27.0
5	25.0	16.0	11.0	10.0	9.5	14.5	19.0	25.0	30.0	30.5	33.5	26.0
6	24.5	17.0	12.0	10.5	11.0	15.0	17.0	26.0	30.0	31.5	33.0	28.0
7	24.0	17.0	13.0	9.5	11.0	15.0	19.0	26.5	30.5	29.5	28.0	27.0
8	25.0	17.0	11.5	9.0	10.5	14.5	20.0	27.0	32.0	30.0	29.5	24.5
9	25.0	11.5	10.5	7.5	11.0	13.0	21.0	24.5	33.0	23.5	30.5	25.0
10	23.5	17.0	10.5	8.5	10.5	12.0	23.5	25.0	31.5	31.5	29.5	26.0
11	22.5	17.0	10.0	8.5	10.0	12.0	23.0	25.0	31.0	29.5	28.0	28.5
12	22.5	16.5	9.0	7.0	9.5	13.0	23.0	25.0	30.5	30.5	29.5	29.0
13	23.0	16.5	8.5	5.0	11.0	13.5	23.0	26.0	30.0	31.0	25.5	29.5
14	23.0	14.5	9.0	5.5	10.5	15.0	20.0	25.0	31.0	32.0	28.5	28.5
15	22.5	12.5	10.0	6.0	11.5	15.5	15.5	25.5	27.0	33.5	30.0	28.0
16	22.0	12.0	6.0	5.5	13.0	15.0	16.0	24.5	27.5	32.0	28.0	26.5
17	21.0	7.0	7.5	5.0	14.0	15.0	20.0	25.0	28.0	32.0	29.5	26.0
18	21.0	7.5	8.5	2.0	14.0	16.0	21.5	26.5	29.5	33.0	29.5	25.5
19	18.5	8.5	1.0	6.5	14.5	16.5	23.5	24.0	29.0	32.5	28.0	25.0
20	17.5	9.0	3.5	3.5	14.5	15.5	22.0	25.0	31.5	34.0	29.5	25.5
21	19.0	9.5	5.0	7.0	14.0	14.5	22.5	24.5	32.5	31.5	29.5	25.0
22	19.0	10.0	7.0	8.0	14.5	16.0	21.5	25.5	32.5	32.0	29.5	24.5
23	17.5	11.5	8.0	10.0	15.0	16.5	20.5	25.5	30.0	32.5	30.0	26.0
24	17.5	10.0	8.0	10.0	15.0	14.5	20.5	25.5	31.0	31.5	28.0	26.5
25	17.0	8.0	8.5	10.0	15.5	14.5	21.5	27.0	29.0	30.0	30.0	26.0
26	16.0	7.0	8.5	10.5	16.0	16.5	23.5	27.0	29.0	30.0	30.5	25.5
27	16.5	7.5	10.0	11.0	16.5	19.5	25.0	28.5	29.5	29.0	29.5	28.0
28	13.5	8.0	10.5	11.5	16.0	17.5	26.0	25.0	30.0	24.5	30.0	27.0
29	12.5	8.5	11.0	12.5	---	17.0	25.0	25.5	28.5	26.5	30.5	26.5
30	8.5	10.0	10.5	11.5	---	18.0	27.0	26.0	29.5	29.5	30.5	26.5
31	13.5	---	10.0	10.5	---	19.0	---	24.0	---	30.5	30.0	---
MEAN	20.0	12.0	9.0	8.5	12.5	15.5	21.0	25.5	30.0	30.5	30.0	26.5

WTR YR 1981 MEAN 20.0 MAX 34.0 MIN 1.0

08408500 DELAWARE RIVER NEAR RED BLUFF, NM

LOCATION.--Lat 32°01'23", long 104°03'15', in NE¼SW¼SE¼ sec.23, T.26 S., R.28 E., Eddy County, Hydrologic Unit 13070002, near center of channel on downstream side of pier of bridge on U.S. Highway 285, 2.1 mi (3.4 km) north 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 405.6 (652.6 km).

DRAINAGE AREA.--689 mi^2 (1,785 km^2).

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) National Geodetic Vertical Datum of 1929. Prior to May 1914, at site 3.0 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.

REMARKS.--Records fair. One small upstream diversion. Several observations of water temperature during year.

AVERAGE DISCHARGE.--44 years (1938-81), 13.4 ft^3/s (0.379 m^3/s), 9,710 acre-ft/yr (12.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,400 ft^3/s (2,310 m^3/s) Oct. 2, 1955, gage height, 27.0 ft (8.23 m), from floodmarks, from rating curve extended above 1,500 ft^3/s (42.5 m^3/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 (8.23 m); no flow many days most years.

Maximum discharge since at least 1911 is that of Oct. 2, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 712 ft^3/s (20.2 m^3/s) July 9, gage height, 5.47 ft (1.667 m) no peak above base of 1,700 ft^3/s (48 m^3/s); no flow June 25-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	5.3	5.5	4.8	4.9	14	4.9	4.0	2.0	8.0	7.2	.91
2	10	5.2	4.9	4.7	4.9	10	5.0	5.3	1.2	11	13	1.5
3	8.9	5.0	4.9	4.9	4.9	7.4	4.5	13	17	6.4	12	1.2
4	8.5	4.8	5.0	4.9	4.9	6.0	4.0	6.8	15	4.5	7.2	1.8
5	7.6	4.5	5.6	4.9	5.3	5.9	3.7	5.6	2.4	6.8	9.8	90
6	6.4	4.7	5.6	4.9	5.3	5.8	4.0	4.8	18	3.7	4.9	74
7	5.6	4.5	6.0	4.9	5.6	5.9	4.4	4.5	16	2.7	3.4	39
8	5.3	4.5	5.8	5.2	5.3	5.6	4.5	4.2	6.8	11	11	63
9	5.3	4.2	5.4	5.3	5.0	5.8	4.3	2.9	4.5	166	26	97
10	4.9	3.7	5.2	5.3	4.5	6.4	4.2	2.2	4.1	49	8.9	25
11	4.5	4.0	5.0	5.1	4.1	7.4	4.0	2.8	3.7	15	6.8	13
12	4.5	4.1	5.3	5.9	4.1	7.5	4.0	3.3	3.4	11	20	9.3
13	4.5	4.5	5.6	6.4	4.3	7.2	3.8	2.5	3.4	7.6	8.5	7.6
14	4.1	4.4	5.2	7.6	4.9	6.7	8.0	3.6	3.4	6.8	25	6.4
15	3.7	4.3	4.9	6.8	5.1	6.3	8.9	2.9	2.7	7.6	16	5.6
16	3.4	6.1	4.9	5.8	5.3	6.0	7.5	3.6	2.0	15	43	5.1
17	3.4	6.0	4.7	6.0	5.3	6.3	6.3	3.0	2.0	11	36	4.7
18	3.4	5.7	4.6	6.5	5.0	6.0	6.0	2.9	2.0	6.8	14	4.4
19	3.4	5.3	4.1	6.7	4.9	5.6	4.9	2.7	2.4	5.3	63	4.3
20	4.5	5.1	4.2	6.4	4.9	5.6	4.3	3.2	2.4	4.5	24	4.3
21	4.9	4.9	4.2	6.0	5.1	5.3	4.2	3.1	2.0	4.1	11	4.3
22	5.3	5.2	4.6	5.6	4.9	5.3	4.1	3.0	1.5	3.3	6.8	4.3
23	4.9	5.0	4.9	5.3	4.9	5.6	4.1	2.4	.40	2.8	4.9	4.3
24	4.9	4.9	4.7	5.4	5.1	5.5	4.5	2.4	.16	2.0	4.1	4.3
25	4.9	6.3	4.5	5.3	5.3	5.6	4.5	3.0	.00	1.3	3.0	6.0
26	4.5	6.3	4.5	5.2	5.3	5.6	4.2	2.7	.00	.82	2.7	5.4
27	4.1	6.0	4.9	5.1	5.8	5.6	3.8	2.4	.00	.60	2.0	3.1
28	4.5	6.1	4.9	4.9	7.3	5.3	4.9	1.8	.16	74	1.8	2.7
29	4.9	5.8	4.9	4.8	---	5.0	4.8	2.0	1.5	68	1.5	3.0
30	4.9	5.7	4.8	4.5	---	4.8	4.9	4.5	35	25	1.2	3.0
31	5.2	---	4.6	4.9	---	4.9	---	4.9	---	8.5	.91	---
TOTAL	166.9	152.1	153.9	170.0	142.2	195.9	145.2	116.0	155.12	550.12	399.61	518.51
MEAN	5.38	5.07	4.96	5.48	5.08	6.32	4.84	3.74	5.17	17.7	12.9	17.3
MAX	12	6.3	6.0	7.6	7.3	14	8.9	13	35	166	63	97
MIN	3.4	3.7	4.1	4.5	4.1	4.8	3.7	1.8	.00	.60	.91	.91
AC-FT	331	302	305	337	282	389	288	230	308	1090	793	1030

CAL YR 1980 TOTAL 4758.26 MEAN 13.0 MAX 1200 MIN .00 AC-FT 9440
WTR YR 1981 TOTAL 2865.56 MEAN 7.85 MAX 166 MIN .00 AC-FT 5680

08410000 RED BLUFF RESERVOIR NEAR ORLA, TX

LOCATION.--Lat 31°54'04", long 103°54'35", Reeves County, Hydrologic Unit 13070001, at right end of Red Bluff Dam on the Pecos River, 2.8 mi (4.5 km) upstream from Salt Creek, and 5.2 mi (8.4 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. Datum of gage is 0.43 ft (0.131 m) below National Geodetic Vertical Datum of 1929.

REMARKS.--The reservoir is formed by a rock-faced earthfill dam 9,200 ft (2,800 m) long. The dam was completed and storage began in September 1936. The dam and reservoir are owned and operated by the Red Bluff Water Power Control District. The water is used for power development and for irrigation from Mentone to Grandfalls. The uncontrolled emergency spillway, 790 ft (241 m) wide, is a cut through natural ground located to the right of right end of dam. The controlled service spillway is equipped with 12 tainter gates that are 25 by 15 ft (8 by 5 m) high. Inflow is partly regulated by storage in Lake Sumner, Lake McMillan, and Lake Avalon, total combined capacity 154,400 acre-ft (190 hm³), and by several small diversion dams that divert water for power or irrigation. The capacity curve is based on Geological Survey topographic map, survey of 1925. Figures given herein represent total contents. Data regarding the dam and reservoir are given in the following table:

	Gage height (feet)	Capacity (acre-feet)
Top of dam	2,856.0	-
Crest of spillway	2,845.0	340,000
Top of gates (top of conservation pool)	2,842.0	310,000
Crest of spillway	2,827.0	166,500
Lowest gated outlet (invert)	2,764.0	3,000

COOPERATION.--Gage-height records and capacity curve were furnished by the Red Bluff Water Power and Control District.

EXTREMES (at 0800) FOR PERIOD OF RECORD.--Maximum contents observed, 352,000 acre-ft (434 hm³) Sept. 27, 28, 1941, gage height, 2,846.2 ft (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 (847.77 m).

EXTREMES (at 0800) FOR CURRENT YEAR.--Maximum contents observed, 78,650 acre-ft (97.0 hm³) Feb. 17-21, gage height, 2,811.7 ft (857.01 m); minimum observed, 51,500 acre-ft (63.5 hm³) Sept. 30, gage height, 2,804.5 ft (854.81 m).

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

2,804.0	50,000
2,808.0	63,500
2,812.0	80,000

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67500	68300	69900	72700	77300	73900	73100	76400	71900	60350	55800	55800
2	67900	68300	69900	73100	77300	73100	73100	76400	71900	59650	55800	55800
3	68300	68300	70300	73100	77300	72700	73100	76400	71500	58950	55450	55450
4	68300	68300	70300	73100	77300	72300	73100	76400	71500	58250	55450	55100
5	68300	68300	70300	73100	77300	71500	73100	76400	71500	57550	55100	55100
6	67900	68300	70700	73500	77300	70700	73100	76400	71500	56850	55100	55100
7	67900	68300	70700	73500	77750	70300	73100	76400	71100	56150	55100	55100
8	67900	68300	70700	73500	77750	70300	73100	76400	70700	55450	54750	55100
9	67900	68300	71100	73900	77750	70300	73100	75950	70700	55100	54750	54400
10	67900	68700	71100	73900	77750	70700	73100	75950	70700	55800	54750	54050
11	67900	68700	71100	74300	77750	70700	73100	75950	70300	55800	54750	53700
12	67900	68700	71500	74300	78200	71100	73100	75500	69900	56150	54400	53700
13	67900	68700	71500	74300	78200	71500	73100	75500	69500	56150	55100	53350
14	67900	68700	71500	74700	78200	71500	73100	75100	69100	56150	55800	53350
15	68300	68700	71500	74700	78200	71500	74700	75100	68700	55800	55800	53000
16	68300	68700	71500	75100	78200	71900	74700	74700	68300	55800	55800	53000
17	68300	69100	71500	75100	78650	72300	75100	74300	67900	55800	55800	53000
18	68300	69100	71500	75500	78650	72300	75100	74300	67500	55450	55800	52700
19	68300	69100	71500	75500	78650	72300	75500	73900	67100	55450	56150	52700
20	68300	69100	71500	75500	78650	72300	75500	73900	66700	55100	56150	52700
21	68300	69100	71500	75950	78650	72700	75500	73500	66300	55100	56500	52400
22	68300	69100	71500	75950	78200	72700	75950	73500	65900	55100	56500	52400
23	68300	69100	71500	75950	77300	73100	75950	73500	64700	54750	56500	52400
24	68300	69500	71900	76400	76850	73100	75950	73100	63900	54750	56500	52100
25	68300	69500	71900	76400	76400	73100	75950	73100	63150	54400	56500	52100
26	68300	69500	72300	76400	75500	73100	75950	73100	62450	54400	56500	52100
27	68300	69500	72300	76400	74700	73100	75950	72700	61750	54050	56500	51800
28	68300	69900	72300	76850	74300	73100	75950	72700	60700	54050	56150	51800
29	68300	69900	72700	76850	---	73100	75950	72300	61400	55800	56150	51800
30	68300	69900	72700	76850	---	73100	76400	72300	60700	55800	56150	51500
31	68300	---	72700	76850	---	73100	---	72300	---	55800	56150	---
MAX	68300	69900	72700	76850	78650	73900	76400	76400	71900	60350	56500	55800
MIN	67500	68300	69900	72700	74300	70300	73100	72300	60700	54050	54400	51500
(±)	+1200	+1600	+2800	+4150	-2550	-1200	+3300	-4100	-11600	-4900	+350	-4650

CAL YR 1980 MAX 85400 MIN 33980 (±) -5500
WTR YR 1981 MAX 78650 MIN 51500 (±) -15600

(±) CHANGE IN CONTENTS IN ACRE-FEET.

08412500 PECOS RIVER NEAR ORLA, TX

LOCATION.--Lat 31°52'21", long 103°49'52", Reeves County, Hydrologic Unit 13070001, on right bank at bridge on Farm Road 652, 5.5 mi (8.8 km) downstream from Salt Creek (Screw Bean Arroyo), 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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1937 to current year.

REVISED RECORDS.--WSP 928: 1937.

GAGE.--Water-stage recorder. Datum of gage is 2,730.86 ft (832.366 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 16, 1969, at site 6.9 mi (11.1 km) downstream at datum 12.81 ft (3.904 m) lower.

REMARKS.--Water-discharge records fair. Most of flow is released from storage in Red Bluff Reservoir (station 08410000). Occasional runoff from draws between dam and station. Many diversions above Red Bluff Reservoir for irrigation.

AVERAGE DISCHARGE.--44 years (water years 1938-81), 167 ft³/s (4.729 m³/s), 121,000 acre-ft/yr (149 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,700 ft³/s (671 m³/s) Sept. 29, 1941, gage height, 20.74 ft (6.322 m), site and datum then in use; no flow at times in 1946 and 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 588 ft³/s (16.7 m³/s) July 29 at 1130 hours, gage height, 7.54 ft (2.298 m); minimum daily, 6.9 ft³/s (0.20 m³/s) Apr. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	54	47	15	12	390	8.4	11	108	369	109	80
2	46	54	46	14	12	392	8.4	13	108	368	103	81
3	71	55	46	14	11	385	8.4	15	109	350	100	81
4	68	53	46	14	11	384	7.9	23	109	341	99	82
5	66	53	47	14	11	356	7.9	26	109	341	99	85
6	65	54	46	14	11	358	7.9	55	109	340	97	88
7	62	54	47	13	11	313	7.9	62	110	341	99	134
8	60	55	48	15	11	18	7.9	61	108	335	105	181
9	58	54	49	17	11	14	7.9	58	110	101	112	356
10	55	53	49	18	11	14	7.9	58	140	94	103	350
11	52	52	48	16	11	15	7.4	78	162	89	103	305
12	51	53	47	17	10	15	6.9	96	164	89	130	100
13	50	54	47	21	9.4	15	8.4	96	163	90	165	93
14	50	54	47	30	10	15	248	96	161	91	163	91
15	49	54	47	22	11	14	57	96	159	91	177	88
16	47	57	47	17	12	13	31	96	160	94	167	83
17	46	61	46	16	14	13	21	96	160	104	168	68
18	46	60	46	17	14	12	18	96	160	105	78	67
19	47	55	45	19	12	11	16	96	160	100	46	67
20	48	53	44	19	72	11	14	83	160	99	30	66
21	49	52	44	18	381	11	13	57	170	99	23	65
22	50	50	40	16	385	11	13	57	319	99	21	64
23	49	48	18	16	386	11	12	66	332	98	17	65
24	50	48	17	15	386	10	13	57	335	95	13	63
25	51	51	16	14	385	11	13	57	339	94	10	54
26	52	55	16	14	382	11	13	64	336	92	15	56
27	52	54	16	14	380	11	12	99	337	89	46	53
28	51	52	16	13	382	11	11	103	348	105	54	52
29	52	49	15	13	---	11	11	106	424	465	55	53
30	53	48	15	12	---	10	11	107	424	380	62	165
31	54	---	15	12	---	8.9	---	109	---	139	79	---
TOTAL	1637	1599	1163	499	3354.4	2874.9	630.2	2193	6093	5687	2648	3236
MEAN	52.8	53.3	37.5	16.1	120	92.7	21.0	70.7	203	183	85.4	108
MAX	71	61	49	30	386	392	248	109	424	465	177	356
MIN	37	48	15	12	9.4	8.9	6.9	11	108	89	10	52
AC-FT	3250	3170	2310	990	6650	5700	1250	4350	12090	11280	5250	6420

CAL YR 1980 TOTAL 30886.8 MEAN 84.4 MAX 1230 MIN 9.1 AC-FT 61260
WTR YR 1981 TOTAL 31614.5 MEAN 86.6 MAX 465 MIN 6.9 AC-FT 62710

08412500 PECOS RIVER NEAR ORLA, TX -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1937 to current year.
WATER TEMPERATURES: March 1953 to current year.
REMARKS.--Station is operated by the Texas District.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 29,400 micromhos May 16, 1978; minimum daily, 1,610 micromhos June 2, 1948.
WATER TEMPERATURES (Water 1953-61, 1968-80): Maximum, 31.0°C Aug. 13, 1978; minimum, 0.5°C Jan. 6, 1971, Jan. 11, 1973, Dec. 11, 1978.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 25,000 micromhos May 5; minimum daily, 6,260 micromhos July 29.
WATER TEMPERATURES: Maximum, 29.5°C Aug. 1; minimum 3.0°C Jan. 18.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT									
09...	1120	57	14700	--	21.0	2800	2700	720	240
FEB									
26...	1415	3.8	8700	--	13.0	1600	1500	400	150
JUN									
25...	1245	336	9360	--	24.0	1900	1800	460	180
AUG									
13...	1500	166	10900	7.3	26.0	2100	2000	530	180
SEP									
16...	1505	87	10600	--	24.0	2100	2000	540	180

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
OCT									
09...	2400	20	62	110	2200	4200	.8	10	--
FEB									
26...	1400	15	32	100	1400	2200	.8	2.2	5650
JUN									
25...	1400	14	41	100	1600	2600	.5	6.2	6350
AUG									
13...	1800	17	42	100	1800	3100	.7	7.3	7520
SEP									
16...	1600	15	41	85	1700	3000	.7	7.5	7120

08412500 PECOS RIVER NEAR ORLA, TX -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.°C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15400	14400	12600	22900	23100	8800	23400	23000	11000	9810	9710	10500
2	16900	14300	12600	22900	23200	9030	23400	23200	10600	9840	9920	10600
3	14500	14300	12500	23000	23400	8650	23500	23200	11000	9430	10100	10500
4	14600	14300	12600	23000	23400	8580	23600	21900	10800	9430	10300	10600
5	14700	14000	12700	23000	23400	8470	23500	25000	10500	9510	10500	10800
6	14700	14000	12800	23000	23400	8420	23500	14300	10300	9560	10500	11000
7	14700	14000	12900	23100	23500	8370	23800	12800	10400	9490	10500	13100
8	14700	14100	13000	22800	23600	9940	23800	12900	10400	9720	10700	12900
9	14800	14000	13000	22700	23800	16500	23900	12700	10300	9810	13000	10000
10	14800	13800	13100	23000	23800	19000	24100	11900	10100	10000	12200	9910
11	14800	13700	12800	23300	23800	19900	24200	11700	9700	10200	11400	10000
12	14700	13700	12700	22900	23600	20900	24300	10000	9670	10500	10500	10500
13	14800	13800	12600	22800	23900	21400	24200	9940	9580	10500	10900	10600
14	14800	13800	12800	17500	23400	21600	16200	9850	9610	10400	10600	10700
15	14800	13800	12700	15700	23500	21900	8250	9770	9550	10500	10700	10600
16	14800	13600	12600	23100	23600	21800	22400	9750	9480	10400	12000	10600
17	14600	14100	12600	22900	23900	21700	23300	9560	9510	13900	15200	10700
18	14500	13400	12600	22500	23900	21900	22100	9550	9480	14300	13000	10800
19	14500	14400	12600	22500	23800	21900	21400	9600	9490	13500	11000	10900
20	14600	14400	11800	22800	23800	22300	20900	9560	9530	12700	12000	11000
21	14700	14100	12200	23000	9000	22300	21100	10300	9540	12400	14300	11000
22	14900	13700	12300	22900	8700	22300	21500	11300	9330	12000	15000	11100
23	14900	13600	12600	22900	8650	22300	21900	10600	9380	11700	15500	11200
24	14800	13200	15000	22800	8680	22600	22400	10900	9360	11300	15900	11300
25	14700	12800	21500	22900	8680	22700	22700	11000	9370	11100	16200	11500
26	14700	12000	22400	23000	8700	22700	23000	11000	9430	10800	16500	13400
27	14800	13800	22800	22700	8640	22800	23200	9800	9460	10600	11000	12100
28	14700	13400	22800	22600	8710	23100	23200	9840	9470	10500	10800	11700
29	14600	13200	22900	22500	---	23400	23200	9660	9120	6260	10800	11500
30	14100	12400	22800	22600	---	23200	23300	9780	11900	7150	10800	10200
31	14500	---	23000	22600	---	23400	---	10300	---	8300	10500	---
MEAN	14800	13700	15000	22400	19300	18400	22300	12700	9910	10500	12000	11000

WTR YR 1981 MEAN 15200 MAX 25000 MIN 6260

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	15.0	11.0	9.0	7.0	12.0	17.0	24.0	22.0	26.0	29.5	25.0
2	23.0	15.0	10.0	8.0	6.0	12.0	18.5	23.0	21.0	25.0	27.5	26.0
3	20.0	15.0	8.0	9.0	6.0	13.0	21.0	22.5	23.5	27.0	27.0	25.0
4	22.0	16.0	9.0	8.0	8.0	11.0	16.0	23.0	21.5	28.0	27.0	25.0
5	22.0	16.0	10.0	8.0	7.0	12.0	17.0	24.0	21.5	28.5	27.0	24.0
6	22.0	16.0	---	9.0	8.0	11.0	---	20.0	22.0	28.0	28.0	25.0
7	21.0	16.0	12.0	8.5	8.0	14.0	15.0	21.0	---	26.0	27.0	24.0
8	21.0	16.0	11.0	9.0	---	10.0	17.0	20.0	23.0	26.0	26.0	23.0
9	22.5	16.0	9.0	7.0	12.0	11.0	18.0	19.0	22.0	26.0	25.0	23.0
10	21.0	15.0	8.0	11.0	12.0	11.0	20.0	17.0	24.0	---	26.0	25.0
11	19.0	16.0	7.0	9.0	7.0	10.0	21.0	18.0	23.0	26.0	26.0	---
12	20.0	18.0	8.0	8.0	5.0	10.0	16.0	18.0	23.0	26.0	25.0	23.0
13	22.0	18.0	9.0	8.0	7.0	14.0	22.0	18.0	23.0	27.0	27.0	24.0
14	21.0	16.0	11.0	7.0	8.0	12.0	15.0	18.0	23.5	27.0	28.0	26.0
15	21.0	14.0	11.0	6.0	9.0	12.0	13.0	19.0	22.5	27.5	26.0	24.0
16	18.0	11.0	9.0	7.0	9.0	14.0	14.0	---	23.0	27.0	26.5	23.0
17	19.0	9.0	9.0	5.0	11.0	15.0	17.0	19.0	22.0	28.0	27.0	23.0
18	19.0	7.0	9.0	3.0	---	13.0	18.0	18.5	23.0	28.0	28.0	21.0
19	17.0	9.0	9.0	4.0	11.0	14.0	20.0	18.0	24.0	---	26.0	21.0
20	20.0	10.0	7.0	5.0	12.0	14.0	20.0	18.0	25.0	28.0	25.0	22.0
21	18.0	11.0	6.0	6.0	---	13.0	23.0	21.0	25.0	28.0	25.0	22.0
22	18.0	12.0	6.0	6.0	13.0	17.0	20.0	22.0	25.0	27.0	26.0	23.0
23	17.0	12.0	7.0	6.0	8.0	14.0	19.0	20.0	25.0	28.0	26.0	23.0
24	16.0	11.0	---	6.5	9.0	14.0	18.0	21.0	25.0	27.0	26.0	---
25	16.0	8.0	---	---	9.0	15.0	19.0	20.0	24.0	27.0	26.0	24.0
26	18.0	6.0	8.0	10.0	10.0	15.0	20.0	22.0	24.0	27.0	26.0	25.0
27	17.0	7.0	11.5	8.0	10.0	18.0	25.0	21.0	24.0	27.0	27.0	23.0
28	14.0	8.0	9.0	8.0	12.0	17.0	23.0	21.0	25.0	26.0	27.5	23.0
29	13.0	9.0	10.0	9.0	---	16.0	25.0	21.0	26.0	23.0	---	23.0
30	13.0	9.0	8.0	8.0	---	16.0	25.0	20.0	25.0	---	26.0	23.0
31	14.0	---	8.0	8.0	---	17.0	---	21.0	---	27.0	28.0	---
MEAN	19.0	12.5	9.0	7.5	9.0	13.5	19.0	20.5	23.5	27.0	26.5	23.5

WTR YR 1981 MEAN 17.5 MAX 29.5 MIN 3.0

08477110 MIMBRES RIVER AT MIMBRES, NM
(National stream-quality accounting network station)

LOCATION.--Lat 32°51'17", long 107°58'23", in NW¼SW¼ sec.3, T.16 S., R.11 W., Grant County, Hydrologic Unit 13030202, on left bank 100 ft (30 m) downstream from Willow Springs Canyon, 0.3 mi (0.5 km) east of Mimbres, 1.1 mi (1.8 km) downstream from Shepard Canyon, 2.5 mi (4.0 km) downstream from Bear Canyon and at mile 73.1 (117.6 km).

DRAINAGE AREA.--184 mi^2 (477 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,920 ft (1,804 m), from topographic map.

REMARKS.--Water-discharge records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,800 ft^3/s (51.0 m^3/s) Dec. 18, 1978, gage height, 9.00 ft (2.743 m) from floodmarks, from rating curve extended above 450 ft^3/s (13 m^3/s) on basis of slope-area measurement of peak flow; minimum, 0.22 ft^3/s (0.006 m^3/s) Aug. 22, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft^3/s (5.7 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
July 6	1500	462	13.1	4.60	1.402	Aug. 4	1545	380	10.8	4.45	1.356
July 15	1715	*830	23.5	5.08	1.548	Aug. 10	1400	318	9.01	4.37	1.332
July 27	1815	706	20.0	4.94	1.506	Aug. 17	1830	260	7.36	4.22	1.286

Minimum discharge, 0.28 ft^3/s (0.008 m^3/s) June 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	3.0	2.1	4.2	3.1	.74	2.5	1.5	7.1	15	16	6.8
2	5.6	3.1	2.1	4.2	3.4	.93	3.0	2.0	12	7.1	28	7.2
3	6.2	2.9	2.2	3.9	3.3	1.0	2.7	2.3	11	5.6	37	9.8
4	4.6	3.2	2.3	3.8	3.5	4.0	2.5	2.6	7.8	5.2	33	8.7
5	3.7	3.5	2.5	3.8	3.5	7.0	2.3	2.8	5.9	4.0	9.1	7.7
6	1.2	3.3	2.6	4.0	3.5	5.0	2.4	2.5	5.2	26	8.2	7.8
7	1.4	3.0	2.7	4.0	3.5	2.0	2.2	2.1	4.5	9.6	4.3	10
8	1.7	2.9	2.7	4.0	3.5	2.0	2.3	1.9	4.3	7.2	2.2	8.1
9	1.8	3.0	2.8	3.8	3.6	2.4	2.4	1.9	3.5	6.0	1.4	8.0
10	1.8	3.0	2.8	3.7	3.4	2.7	2.4	1.9	3.0	5.2	25	10
11	2.0	2.8	2.8	3.7	3.5	2.8	2.4	3.0	2.8	4.8	36	9.6
12	2.1	2.8	2.8	4.0	3.5	2.9	2.5	4.3	1.8	6.3	19	8.8
13	1.8	3.0	3.0	4.2	3.4	3.3	2.4	3.9	.50	16	12	13
14	1.8	2.9	3.0	4.5	3.4	4.0	4.1	3.4	.74	8.6	7.9	8.7
15	2.1	2.9	3.0	4.7	3.6	5.0	5.7	2.2	.68	53	7.8	7.8
16	2.2	2.8	3.2	4.6	3.6	5.2	5.6	2.0	.68	51	12	7.5
17	2.2	2.9	3.3	4.5	3.7	5.6	5.6	2.2	.56	11	38	7.2
18	2.2	2.5	4.2	4.6	3.9	5.1	4.4	2.1	.50	7.1	28	6.5
19	2.2	1.3	4.4	4.5	3.5	5.5	4.0	2.2	.46	6.7	22	5.9
20	2.8	1.4	4.5	4.5	3.0	5.7	3.9	2.8	.46	5.9	17	5.2
21	2.8	1.5	4.5	4.4	2.9	4.5	4.3	2.1	.56	1.7	11	3.5
22	2.1	1.6	4.5	4.5	3.3	4.2	3.0	2.1	.56	12	6.0	2.8
23	2.1	1.7	4.5	4.5	3.2	4.0	.58	2.2	.50	1.7	4.2	1.9
24	2.1	1.7	4.7	4.3	3.6	7.6	.59	2.0	.62	1.8	4.3	2.0
25	2.2	1.8	5.0	4.4	2.7	8.6	.71	.80	.42	2.1	4.1	1.8
26	2.8	1.9	5.2	4.4	.56	4.7	.88	.80	.42	2.2	3.9	1.6
27	3.3	1.9	5.2	4.2	.61	3.3	1.1	1.1	.42	11	4.3	1.6
28	3.0	1.9	5.2	4.1	.67	3.0	1.3	.94	9.7	25	4.6	1.7
29	2.9	1.9	5.2	5.4	---	2.9	1.4	.94	9.1	17	5.1	1.5
30	2.5	2.0	5.2	5.3	---	2.5	1.4	2.0	17	18	5.7	1.6
31	2.8	---	4.9	2.8	---	2.6	---	3.0	---	19	6.3	---
TOTAL	84.9	74.1	113.1	131.5	86.94	120.77	80.56	67.58	112.78	372.8	423.4	184.3
MEAN	2.74	2.47	3.65	4.24	3.11	3.90	2.69	2.18	3.76	12.0	13.7	6.14
MAX	6.9	3.5	5.2	5.4	3.9	8.6	5.7	4.3	17	53	38	13
MIN	1.2	1.3	2.1	2.8	.56	.74	.58	.80	.42	1.7	1.4	1.5
AC-FT	168	147	224	261	172	240	160	134	224	739	840	366

CAL YR 1980 TOTAL 3428.92 MEAN 9.37 MAX 48 MIN .27 AC-FT 6800
WTR YR 1981 TOTAL 1852.73 MEAN 5.08 MAX 53 MIN .42 AC-FT 3670

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT												
07...	1630	E2.0	268	8.0	23.0	23.0	.60	7.8	120	0	--	35
JAN												
12...	1200	4.0	260	8.9	9.5	8.0	2.6	10.4	120	0	--	34
MAR												
07...	1000	1.0	240	8.2	3.5	2.5	1.3	12.6	110	0	--	32
MAY												
05...	1000	2.8	280	8.3	15.5	11.0	.90	9.7	130	--	.00	38
JUL												
03...	1000	5.6	260	8.3	22.5	17.0	8.5	9.0	120	--	.00	34
SEP												
08...	0900	8.1	270	8.0	17.0	16.0	6.7	--	110	--	.00	32

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT												
07...	6.7	10	.4	3.3	120	13	3.8	.3	51	216	195	.00
JAN												
12...	7.3	13	.5	2.5	130	13	4.5	.3	48	172	201	.10
MAR												
07...	6.8	11	.5	2.2	110	13	3.4	.2	44	177	179	.00
MAY												
05...	7.6	12	.5	2.7	140	8.1	3.2	.2	48	205	204	.08
JUL												
03...	7.4	13	.5	3.4	130	1.0	4.1	.2	59	208	201	.17
SEP												
08...	7.0	11	.5	3.1	130	<5.0	3.3	.2	53	201	--	.26

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT												
07...	.00	.010	.000	1.1	1.1	.090	--	10	3	--	11	.6
JAN												
12...	.10	.050	.030	.34	.49	.170	--	--	--	3.5	--	--
MAR												
07...	.00	.010	.020	.45	.46	.050	--	20	1	--	2.9	.3
MAY												
05...	.04	.120	.060	1.8	2.0	.180	--	30	2	--	18	.1
JUL												
03...	.04	.060	.080	1.0	1.3	.120	210	20	4	--	2.6	--
SEP												
08...	.14	<.060	.050	--	.83	.100	10	18	12	--	1.5	.5

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
OCT										
07...	1630	2	1	100	40	--	0	1	10	0
MAR										
07...	1000	2	1	100	50	--	0	<1	0	0
MAY										
05...	1000	2	2	10	60	--	0	<1	0	10
JUL										
03...	1000	2	2	100	100	210	2	<1	20	10
SEP										
08...	0900	2	2	100	52	10	0	<1	10	10

RIO GRANDE BASIN
08477110 MIMBRES RIVER AT MIMBRES, NM--Continued
WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
OCT										
07...	0	<3	4	1	180	10	2	0	10	3
MAR										
07...	2	<3	4	3	50	20	7	0	10	1
MAY										
05...	0	<3	3	1	150	30	0	5	10	2
JUL										
03...	0	<3	6	1	540	20	5	1	20	4
SEP										
08...	0	<3	4	2	650	18	2	1	40	12

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT										
07...	.0	.0	4	2	0	0	0	0	10	<3
MAR										
07...	.1	.0	0	1	0	0	0	0	10	8
MAY										
05...	.1	.0	1	0	0	0	0	0	10	6
JUL										
03...	.1	.0	4	1	0	0	0	0	20	7
SEP										
08...	.2	.1	0	1	0	0	0	0	20	12

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT				
07...	1630	190	190	81
JAN				
12...	1200	--	6	66
MAR				
07...	1000	--	2	430
MAY				
05...	1000	--	74	290
JUL				
03...	1000	--	310	370
SEP				
08...	0900	--	640	510

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
07...	1630	E2.0	23.0	13	--	90
JAN						
12...	1200	4.0	8.0	3	.03	97
MAR						
07...	1000	1.0	2.5	7	.02	84
MAY						
05...	1000	2.8	11.0	6	.05	71
JUL						
03...	1000	5.6	17.0	21	.32	97
SEP						
08...	0900	8.1	16.0	28	.61	83

08477110 MIMBRES RIVER AT MIMBRES, NM--Continued

WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
IDENTIFICATION OF PHYTOPLANKTON

DATE	OCT 7,80		JAN 12,81		MAR 7,81		MAY 5,81		JUL 3,81		SEP 8,81	
TIME	1630		1200		1000		1000		1000		0900	
TOTAL CELLS/ML	77		480		26		26		1300		1400	
DIVERSITY: DIVISION	0.0		1.0		0.0		1.0		0.3		0.3	
.CLASS	0.0		1.0		0.0		1.0		0.3		0.3	
..ORDER	1.3		2.1		0.0		1.0		0.5		1.4	
...FAMILY	1.3		2.4		0.0		1.0		0.5		2.1	
....GENUS	1.3		2.6		0.0		1.0		0.5		2.1	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)												
.BACILLARIOPHYCEAE												
..ACHNANTHALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	13	3	--	-	--	-	--	-	14	1
....COCCONEIS	13#	17	39	8	--	-	13#	50	13	1	--	-
..BACILLARIALES												
...NITZSCHIACEAE												
....NITZSCHIA	52#	67	100#	22	--	-	--	-	13	1	480#	35
..EUPODISCALES												
...COSCINODISCACEAE												
....CYCLOTELLA	13#	17	--	-	--	-	--	-	--	-	--	-
....MELOSIRA	--	-	--	-	--	-	--	-	--	-	14	1
..FRAGILARIALES												
...FRAGILARIACEAE												
....DIATOMA	--	-	13	3	--	-	--	-	--	-	--	-
....FRAGILARIA	--	-	--	-	--	-	--	-	--	-	14	1
....SYNEDRA	--	-	13	3	--	-	--	-	--	-	14	1
..NAVICULALES												
...CYMBELLACEAE												
....CYMBELLA	--	-	52	11	--	-	--	-	--	-	41	3
...GOMPHONEMACEAE												
....GOMPHONEMA	--	-	52	11	--	-	--	-	--	-	230#	17
...NAVICULACEAE												
....NAVICULA	--	-	13	3	--	-	--	-	26	2	520#	38
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHLOROCOCCACEAE												
....TETRAEDRON	--	-	--	-	--	-	--	-	--	-	14	1
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	13	1	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	--	-	--	-	26#	100	13#	50	26	2	--	-
..NOSTOCALES												
...HAMMATOIDEACEAE												
....RAPHIDIOPSIS	--	-	--	-	--	-	--	-	--	-	41	3
..OSCILLATORIALES												
...OSCILLATORIACEAE												
....LYNGBYA	--	-	--	-	--	-	--	-	1200#	93	--	-
....OSCILLATORIA	--	-	180#	38	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08481500 RIO TULAROSA NEAR BENT, NM
(National stream-quality accounting network station)

LOCATION.--Lat 33°08'41", long 105°53'50", in SE¼NW¼ sec.32, T.13 S., R.11 E., Otero County, Hydrologic Unit 13050003, on right bank 50 ft (15 m) downstream from old U.S. Highway 70 bridge, 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 mi^2 (310 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1947 to current year.
REVISED RECORDS.--WSP 1312: 1949(M).
GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,450 ft (1,660 m), from topographic map.
REMARKS.--Water-discharge records fair. Diversion for irrigation of about 1,000 acres (4.0 km^2) 1959 determination, above station.
AVERAGE DISCHARGE.--33 years, (1949-81), 10.1 ft^3/s (0.286 m^3/s), 7,320 acre-ft/yr (9.03 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum dischage 4,280 ft^3/s (121 m^3/s) June 18, 1965, gage height, 5.02 ft (1.530 m), from rating curve extended above 160 ft^3/s (4.53 m^3/s) on basis of slope-area measurement of peak flow; no flow May 14, 1955, result of unusual regulation.
EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood probably occurred Sept. 3, 1938, when a peak of 9,640 ft^3/s (273 m^3/s) was computed for station approximately 6 mi (10 km) downstream near Tularosa. Another flood may have occurred July 2, 1914.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 125 ft^3/s (3.54 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
July 1	1745	435	12.3	3.09	.953	Aug. 27	1115	176	4.98	2.76	.851
July 12	1945	1,880	53.2	3.79	1.169	Sept. 16	1500	390	11.0	3.07	.947
Aug. 16	1915	225	6.37	2.78	.857						

Minimum discharge, 2.1 ft^3/s (0.059 m^3/s) May 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	13	15	13	14	14	15	12	7.8	28	11	14
2	11	14	14	14	14	14	15	12	7.7	8.3	11	13
3	10	14	16	15	15	14	15	7.5	13	8.0	11	13
4	10	14	15	15	15	14	14	8.3	13	8.4	11	12
5	9.7	14	15	14	15	14	11	9.2	12	8.6	11	12
6	10	14	15	15	15	14	10	13	12	8.0	13	14
7	12	14	15	15	15	14	11	12	12	8.4	11	14
8	12	14	15	15	15	14	16	12	11	9.1	14	14
9	12	14	14	15	17	14	15	12	11	9.9	11	14
10	11	14	14	15	16	14	15	12	12	10	12	14
11	11	15	14	13	15	14	15	11	11	10	15	13
12	12	15	14	14	15	15	15	12	11	30	12	13
13	13	15	14	14	15	15	15	11	11	15	12	12
14	13	15	13	14	15	15	14	12	6.7	12	16	12
15	14	15	14	15	15	15	15	11	6.3	12	15	13
16	13	15	13	14	15	15	14	11	6.7	12	25	17
17	14	14	13	13	15	15	13	8.8	9.5	12	17	11
18	14	14	14	13	14	15	14	8.9	11	12	12	9.2
19	14	14	14	14	13	15	9.4	8.4	9.9	12	15	8.6
20	14	14	13	15	13	15	7.2	12	11	12	17	7.7
21	15	14	13	15	13	15	6.3	12	11	11	16	7.5
22	14	14	13	13	13	15	11	12	9.6	11	15	7.7
23	14	14	13	13	14	15	11	12	10	11	14	6.9
24	14	14	13	14	14	15	10	12	11	10	15	7.7
25	14	15	13	14	14	15	11	11	12	11	15	7.7
26	14	15	14	14	13	15	11	11	11	10	17	8.6
27	14	15	13	13	14	15	10	12	11	10	22	9.2
28	14	15	13	16	14	15	11	11	7.4	10	29	9.5
29	14	15	13	15	---	15	12	12	7.7	12	21	9.9
30	14	15	13	14	---	15	13	12	11	11	16	9.9
31	13	---	12	14	---	15	---	7.0	---	11	15	---
TOTAL	394.7	431	427	440	405	454	374.9	340.1	307.3	363.7	467	335.1
MEAN	12.7	14.4	13.8	14.2	14.5	14.6	12.5	11.0	10.2	11.7	15.1	11.2
MAX	15	15	16	16	17	15	16	13	13	30	29	17
MIN	9.7	13	12	13	13	14	6.3	7.0	6.3	8.0	11	6.9
AC-FT	783	855	847	873	803	901	744	675	610	721	926	665

CAL YR 1980 TOTAL 5460.1 MEAN 14.9 MAX 631 MIN 4.8 AC-FT 10830
WTR YR 1981 TOTAL 4739.8 MEAN 13.0 MAX 30 MIN 6.3 AC-FT 9400

08481500 RIO TULAROSA NEAR BENT, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT										
23...	1230	13	1315	8.5	20.5	12.0	.40	9.3	--	--
NOV										
20...	1300	13	1290	7.0	14.0	8.0	2.6	9.7	730	570
DEC										
18...	1330	14	1420	8.3	19.0	9.0	1.9	9.8	690	490
FEB										
02...	1300	14	1330	8.5	10.0	7.0	4.4	10.2	700	550
27...	1300	12	1340	7.9	13.0	10.0	6.2	9.6	710	--
MAR										
18...	1300	16	1380	8.3	16.0	13.0	18	9.3	740	--
APR										
22...	1300	11	1400	8.2	18.0	11.0	56	9.1	790	--
MAY										
20...	1230	13	1340	8.1	27.0	16.0	11	8.4	770	--
JUN										
25...	1200	12	1250	8.0	31.0	20.0	20	8.3	730	--
JUL										
24...	1200	10	1420	8.0	35.0	20.0	32	7.5	770	--
AUG										
25...	1300	13	1620	8.1	35.0	19.0	16	8.8	800	--
SEP										
18...	1300	11	1440	8.0	22.0	17.0	96	--	750	--

DATE	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT									
23...	--	--	--	--	--	--	200	--	--
NOV									
20...	--	200	56	40	.6	1.4	--	160	500
DEC									
18...	--	190	53	47	.8	1.3	--	200	510
FEB									
02...	--	190	54	43	.7	1.1	--	180	480
27...	--	190	56	46	.8	1.5	--	190	480
MAR									
18...	570	200	58	45	.7	1.1	--	170	500
APR									
22...	610	220	59	45	.7	1.5	--	180	560
MAY									
20...	570	210	59	46	.7	1.1	--	200	520
JUN									
25...	570	200	55	47	.8	2.2	--	160	480
JUL									
24...	590	214	56	45	.8	1.3	--	180	580
AUG									
25...	610	224	59	47	.8	1.6	--	190	560
SEP									
18...	560	210	55	44	.7	1.7	--	190	530

08481500 RIO TULAROSA NEAR BENT, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)
OCT									
23...	--	--	--	--	--	.48	.49	.340	.020
NOV									
20...	62	.1	13	943	971	.57	.55	.050	.060
DEC									
18...	62	.4	14	984	1000	.58	.60	.030	.060
FEB									
02...	56	.4	14	989	948	.54	.23	.090	--
27...	61	.5	13	1010	964	.45	.48	.060	.080
MAR									
18...	63	.4	13	1030	984	.34	.35	.200	.090
APR									
22...	110	.5	14	1110	1120	.43	.44	.120	.060
MAY									
20...	61	.4	14	1110	1030	.46	.48	.130	.040
JUN									
25...	72	.4	15	1010	970	.53	.52	.380	.130
JUL									
24...	60	.5	16	1090	1080	.70	.57	.310	.140
AUG									
25...	69	.4	16	1150	1090	.59	.59	.130	.110
SEP									
18...	64	.5	15	1130	1040	.55	.55	.210	.100

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
OCT									
23...	.30	1.1	.020	--	--	--	5.7	--	--
NOV									
20...	1.2	1.8	.020	70	30	--	6.6	--	--
DEC									
18...	.48	1.1	.050	40	<10	30	--	9.3	.3
FEB									
02...	.77	1.4	.030	160	10	--	6.2	--	--
27...	.65	1.2	.080	40	30	--	5.5	--	--
MAR									
18...	.78	1.3	.090	40	<10	20	--	8.0	1.1
APR									
22...	.88	1.4	.090	30	20	--	15	--	--
MAY									
20...	.45	1.0	.020	40	10	--	4.1	--	--
JUN									
25...	.72	1.6	.070	50	20	20	--	5.4	.8
JUL									
24...	.41	1.4	.180	40	<10	--	6.0	--	--
AUG									
25...	.42	1.1	.010	50	15	--	2.1	--	--
SEP									
18...	.72	1.5	.190	40	<10	27	--	2.7	.3

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)
DEC										
18...	1330	0	0	0	20	40	0	2	0	0
MAR										
18...	1300	0	0	100	20	40	0	<1	10	0
JUN										
25...	1200	1	0	0	70	50	0	<1	20	0
SEP										
18...	1300	2	1	100	33	40	0	<1	30	0

08481500 RIO TULAROSA NEAR BENT, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
DEC										
18...	3	<3	2	0	380	<10	3	0	50	30
MAR										
18...	1	<3	2	0	1000	<10	0	1	60	20
JUN										
25...	5	<3	5	1	860	20	22	3	50	20
SEP										
18...	4	<3	15	1	6500	<10	6	0	240	27

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
DEC										
18...	.0	.0	2	0	1	0	0	0	10	5
MAR										
18...	.1	.0	0	1	1	1	0	0	10	5
JUN										
25...	.1	.0	8	2	0	0	0	0	10	30
SEP										
18...	.2	.1	9	1	1	1	0	0	50	8

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
NOV									
20...	1300	<15	<.4	<5.9	<.4	<5.6	<.4	.06	2.6
MAY									
20...	1230	<26	1.1	<10	1.0	<9.8	1.0	.07	5.0

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
23...	1230	150	60
NOV			
20...	1300	16	76
DEC			
18...	1330	16	29
FEB			
02...	1300	5	30
27...	1300	40	150
MAR			
18...	1300	0	34
APR			
22...	1300	68	290
MAY			
20...	1230	93	160
JUN			
25...	1200	380	1800
JUL			
24...	1200	46	480
AUG			
25...	1300	210	200
SEP			
18...	1300	0	260

TULAROSA VALLEY BASIN
08481500 RIO TULAROSA NEAR BENT, NM -- Continued
WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
IDENTIFICATION OF PHYTOPLANKTON

DATE	MAY 20,81		JUN 25,81		JUL 24,81		AUG 25,81		SEP 18,81	
TIME	1230		1200		1200		1300		1300	
TOTAL CELLS/ML	2300		620		30		14		170	
DIVERSITY: DIVISION	1.1		0.3		0.0		0.0		1.3	
.CLASS	1.1		0.3		0.0		0.0		1.3	
..ORDER	2.2		1.9		0.0		0.0		2.1	
...FAMILY	2.4		2.0		1.0		0.0		2.1	
....GENUS	2.7		2.0		1.0		0.0		2.1	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)										
.BACILLARIOPHYCEAE										
..ACHNANTHALES										
...ACHNANTHACEAE										
....ACHNANTHES	270	12	230#	38	--	-	--	-	14	8
..BACILLARIALES										
...NITZSCHIACEAE										
....NITZSCHIA	340	15	190#	31	--	-	--	-	28#	17
..EUPODISCALES										
...COSCINODISCACEAE										
....CYCLOTELLA	14	1	--	-	--	-	--	-	--	-
..FRAGILARIALES										
...FRAGILARIACEAE										
....SYNEDRA	56	2	13	2	--	-	--	-	--	-
..NAVICULALES										
...CYMBELLACEAE										
....CYMBELLA	150	7	13	2	--	-	--	-	--	-
...GOMPHONEMACEAE										
....GOMPHONEMA	14	1	--	-	15#	50	--	-	14	8
...NAVICULACEAE										
....NAVICULA	220	10	140#	23	15#	50	14#	100	--	-
..SURIRELLALES										
...SURIRELLACEAE										
....SURIRELLA	70	3	--	-	--	-	--	-	--	-
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....OOCYSTIS	--	-	13	2	--	-	--	-	--	-
....TROCHISCIA	--	-	--	-	--	-	--	-	14	8
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	14	1	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONADALES										
...CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	13	2	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..NOSTOCALES										
...HAMMATOIDEACEAE										
....RAPHIDIOPSIS	--	-	--	-	--	-	--	-	14	8
..OSCILLATORIALES										
...OSCILLATORIACEAE										
....LYNGBYA	880#	39	--	-	--	-	--	-	--	-
....OSCILLATORIA	210	9	--	-	--	-	--	-	83#	50
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	14	1	--	-	--	-	--	-	--	-
....TRACHELOMONAS	14	1	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
23...	1230	13	12.0	30	1.1	58
NOV						
20...	1300	13	8.0	36	1.3	48
DEC						
18...	1330	14	9.0	38	1.4	74
FEB						
02...	1300	14	7.0	41	1.5	72
27...	1300	12	10.0	34	1.1	88
MAR						
18...	1300	16	13.0	102	4.4	76
APR						
22...	1300	11	11.0	95	2.8	93
MAY						
20...	1230	13	16.0	39	1.4	70
JUN						
25...	1200	12	20.0	181	5.9	46
AUG						
25...	1300	13	19.0	71	2.5	70
SEP						
18...	1300	11	17.0	281	8.3	54

09346400 SAN JUAN RIVER NEAR CARRACAS, CO

LOCATION.--Lat 37°00'49", long 107°18'42", in SE¼SW¼ sec.17, T.32 N., R.4 W., Archuleta County, Hydrologic Unit 14080101, 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 mi^2 (3,190 km^2), 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.

REMARKS.--Records good except those for winter period which are fair. Diversions for irrigation of about 11,000 acres (45 km^2) above station. Highwater diversions above station into Rio Grande Basin through Azotea tunnel (08284160) began in March 1971. Several observations of specific conductance and water temperature were obtained and are published in Water Resources Data for Colorado.

AVERAGE DISCHARGE.--9 years (water years 1962-70), 632 ft^3/s (17.90 m^3/s), 457,900 acre-ft/yr (565 hm^3/yr) prior to completion of Azotea tunnel.
11 years (water years 1971-81), 552 ft^3/s (15.63 m^3/s), 399,900 acre-ft/yr (493 hm^3/yr) since completion of Azotea tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,730 ft^3/s (276 m^3/s) Sept. 6, 1970, gage height, 8.34 ft (2.542 m), from rating curve extended above 6,000 ft^3/s (170 m^3/s) on basis of slope-area measurement of peak flow; minimum, about 5 ft^3/s (0.1 m^3/s) Dec. 10, 1961, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods occurred Sept. 5 or 6, 1909; Oct. 5, 1911; June 29, 1927.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,940 ft^3/s (54.9 m^3/s) at 1530 hours May 3, gage height, 4.34 ft (1.323 m); no peak above base of 2,500 ft^3/s (71 m^3/s); minimum daily, 85 ft^3/s (2.41 m^3/s) Feb. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138	214	165	138	110	128	142	1070	1230	388	264	173
2	135	211	142	140	85	138	159	1380	1210	453	256	204
3	130	204	148	138	100	151	179	1630	1280	388	242	182
4	128	195	148	135	110	140	179	1480	1250	312	211	156
5	125	192	156	140	110	130	156	1220	1120	283	182	153
6	122	195	153	128	110	132	140	1040	1300	256	165	291
7	120	195	162	108	110	140	167	830	1480	235	159	287
8	115	192	138	118	100	122	185	682	1510	238	207	338
9	111	188	128	120	110	122	179	607	1490	287	204	312
10	104	179	142	120	110	125	207	564	1370	320	275	228
11	104	176	111	130	100	138	264	547	1230	455	296	224
12	106	173	128	132	115	142	304	507	1110	498	490	264
13	113	179	159	130	120	140	304	480	969	296	351	256
14	122	211	156	110	120	140	300	474	852	360	271	245
15	179	192	142	100	125	151	308	496	708	312	231	228
16	249	165	130	110	130	148	312	657	613	312	224	245
17	201	165	148	120	135	148	325	754	553	534	214	218
18	192	148	159	120	148	132	427	676	524	485	235	218
19	185	138	170	110	151	120	453	689	480	402	224	214
20	195	145	159	100	156	130	485	728	474	351	218	195
21	201	142	145	95	156	142	448	721	448	304	188	182
22	204	140	148	95	120	138	485	689	422	268	182	173
23	195	138	156	100	108	132	507	650	388	253	204	248
24	179	140	138	110	118	151	582	637	356	287	192	400
25	167	140	120	110	122	165	650	644	316	374	165	304
26	167	130	132	100	120	165	695	676	304	291	159	242
27	182	130	148	100	132	185	747	714	300	384	179	224
28	192	122	153	90	113	182	754	1070	287	369	148	201
29	179	132	156	110	---	162	802	1170	329	296	195	192
30	170	153	140	110	---	153	890	1170	417	264	159	198
31	195	---	132	90	---	162	---	1270	---	245	162	---
TOTAL	4905	5024	4512	3557	3344	4454	11735	25922	24320	10500	6852	6995
MEAN	158	167	146	115	119	144	391	836	811	339	221	233
MAX	249	214	170	140	156	185	890	1630	1510	534	490	400
MIN	104	122	111	90	85	120	140	474	287	235	148	153
AC-FT	9730	9970	8950	7060	6630	8830	23280	51420	48240	20830	13590	13870

CAL YR 1980 TOTAL 272132 MEAN 744 MAX 4310 MIN 90 AC-FT 539800
WTR YR 1981 TOTAL 112120 MEAN 307 MAX 1630 MIN 85 AC-FT 222400

09349800 PIEDRA RIVER NEAR ARBOLES, CO

LOCATION.--Lat 37°05'18", long 107°23'50", in NE¼SW¼ sec.21, T.33 N., R.5 W., Archuleta County, Hydrologic Unit 14080102, 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 mi^2 (1,629 km^2).

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) National Geodetic Vertical Datum of 1929, from Colorado State Highway Department bench mark.

REMARKS.--Records good. Diversions for irrigation of about 2,800 acres (11 km^2) above station. Several observations of specific conductance and water temperature were obtained and are published in Water Resources Data for Colorado.

AVERAGE DISCHARGE.--19 years, 366 ft^3/s (10.37 m^3/s), 265,200 acre-ft/yr (327 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,370 ft^3/s (237 m^3/s) Sept. 6, 1970, gage height, 6.38 ft (1.945 m) recorded, 7.55 ft (2.301 m) from floodmarks, from rating curve extended above 4,400 ft^3/s (125 m^3/s) on basis of slope-area measurement of peak flow; minimum, 11 ft^3/s (0.31 m^3/s) Dec. 9, 1963, Oct. 1, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods occurred Sept. 5 or 6, 1909; Oct. 5, 1911.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,430 ft^3/s (40.5 m^3/s) at 1130 hours May 3, gage height, 3.15 ft (0.960 m), only peak above base of 1,500 ft^3/s (42 m^3/s); minimum daily, 46 ft^3/s (1.30 m^3s) Feb. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	101	82	65	46	63	92	900	726	194	180	125
2	88	101	76	67	46	70	128	908	740	213	180	115
3	88	101	72	65	50	72	135	1280	812	170	174	106
4	86	99	76	65	55	67	110	1210	756	140	149	101
5	80	99	74	63	52	65	90	956	712	120	130	122
6	78	99	78	60	52	65	97	804	868	108	113	143
7	76	99	75	56	51	63	128	663	956	101	110	140
8	76	97	74	63	51	59	138	564	1010	110	110	122
9	74	94	67	60	49	59	140	480	1020	170	110	135
10	72	94	65	59	48	59	180	435	940	368	135	132
11	70	92	63	61	49	68	229	420	852	375	185	146
12	70	90	74	59	51	70	265	385	740	365	365	158
13	70	92	78	61	51	68	241	360	621	445	285	194
14	70	97	70	58	49	70	241	326	516	375	245	174
15	97	92	70	58	51	72	308	350	430	390	202	164
16	110	78	72	59	52	70	303	390	365	385	180	158
17	99	80	76	58	56	70	316	385	316	321	184	132
18	97	72	74	56	58	68	400	350	273	298	170	118
19	92	70	76	56	67	63	455	365	249	257	155	110
20	94	70	78	54	82	67	440	375	237	213	146	104
21	99	67	74	54	76	70	415	390	225	174	132	99
22	99	65	70	54	67	65	455	360	213	152	140	92
23	99	70	72	56	58	67	492	340	188	146	161	88
24	90	75	65	54	63	72	576	345	174	177	149	108
25	86	72	61	52	67	86	663	370	161	202	130	120
26	88	72	65	51	67	94	691	420	149	191	113	115
27	94	65	68	48	63	115	719	460	140	345	118	108
28	101	67	70	49	58	97	719	642	130	285	130	101
29	92	74	68	48	---	80	719	684	128	225	130	97
30	90	76	68	48	---	90	844	670	149	194	132	97
31	94	---	65	49	---	86	---	726	---	174	130	---
TOTAL	2713	2520	2216	1766	1585	2250	10729	17313	14796	7383	4973	3724
MEAN	87.5	84.0	71.5	57.0	56.6	72.6	358	558	493	238	160	124
MAX	110	101	82	67	82	115	844	1280	1020	445	365	194
MIN	70	65	61	48	46	59	90	326	128	101	110	88
AC-FT	5380	5000	4400	3500	3140	4460	21280	34340	29350	14640	9860	7390

CAL YR 1980 TOTAL 214064 MEAN 585 MAX 4000 MIN 36 AC-FT 424600
WTR YR 1981 TOTAL 71968 MEAN 197 MAX 1280 MIN 46 AC-FT 142700

09354500 LOS PINOS RIVER AT LA BOCA, CO

LOCATION.--Lat 37°00'34", long 107°35'56", in NE¼NW¼ sec. 22, T.32 N., R.7 W., La Plata County, Hydrologic Unit 14080101, 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 mi^2 (1,320 km^2), 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) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by Vallecito Reservoir (station 09353000) 24 mi (39 km) upstream since April 1941. Diversions for irrigation of about 33,000 acres (130 km^2) above station. Several observations of specific conductance and water temperature were obtained and are published in Water Resources Data for Colorado.

AVERAGE DISCHARGE.--31 years, 213 ft^3/s (6.032 m^3/s), 154,300 acre-ft/yr (190 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,400 ft^3/s (181 m^3/s) July 27, 1957, gage height, 8.95 ft (2.728 m), from rating curve extended above 5,100 ft^3/s (140 m^3/s); minimum determined, 5.6 ft^3/s (0.16 m^3/s) May 1, 3, 1977 (may have been lower during periods of freezeup).

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred Oct. 5, 1911 at this location.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 496 ft^3/s (14.0 m^3/s) at 1900 hours July 1, gage height, 4.73 ft (1.442 m); minimum daily, 35 ft^3/s (0.99 m^3/s) Apr. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	160	90	100	50	55	55	54	130	360	163	172
2	122	148	100	98	55	58	55	66	130	302	163	160
3	125	112	110	98	65	74	58	74	148	214	142	148
4	120	95	108	98	65	68	60	95	160	175	133	148
5	139	92	108	98	65	60	54	85	142	172	130	190
6	151	90	110	95	65	60	52	105	133	160	120	242
7	160	85	120	95	65	58	52	88	118	145	115	222
8	163	82	110	95	62	57	50	55	110	145	130	187
9	157	80	102	95	62	54	47	44	105	163	163	190
10	160	80	95	95	58	52	47	50	95	175	202	190
11	163	85	98	98	55	64	49	47	95	184	242	190
12	160	78	98	95	60	76	50	47	105	206	234	178
13	175	80	100	95	62	90	52	58	108	230	175	178
14	187	76	100	95	60	100	50	62	115	187	151	184
15	270	80	102	98	58	110	72	72	125	254	151	163
16	302	85	102	100	58	115	74	118	133	194	151	151
17	286	85	108	98	58	82	74	190	125	169	148	145
18	290	80	110	95	58	66	70	142	122	163	148	151
19	286	75	110	98	58	60	85	110	133	151	148	148
20	286	75	108	98	55	60	78	110	128	133	139	148
21	278	75	110	98	47	68	70	115	128	118	145	145
22	274	70	110	98	46	68	62	100	122	122	163	145
23	270	75	110	98	46	60	62	105	120	175	172	154
24	270	85	105	95	46	58	60	108	118	172	166	163
25	226	80	105	95	46	58	58	108	115	142	154	172
26	322	75	108	98	49	58	57	98	120	194	151	148
27	314	70	108	88	50	60	74	105	130	210	160	142
28	234	70	105	72	50	66	35	110	130	157	160	139
29	194	80	105	70	---	60	47	110	139	142	151	133
30	166	80	102	70	---	58	57	120	136	145	148	130
31	163	---	102	72	---	58	---	136	---	142	175	---
TOTAL	6541	2583	3259	2891	1574	2091	1766	2887	3718	5601	4893	4956
MEAN	211	86.1	105	93.3	56.2	67.5	58.9	93.1	124	181	158	165
MAX	322	160	120	100	65	115	85	190	160	360	242	242
MIN	120	70	90	70	46	52	35	44	95	118	115	130
AC-FT	12970	5120	6460	5730	3120	4150	3500	5730	7370	11110	9710	9830

CAL YR 1980	TOTAL	147611	MEAN 403	MAX	2030	MIN 50	AC-FT	292800
WTR YR 1981	TOTAL	42760	MEAN 117	MAX	360	MIN 35	AC-FT	84810

09355000 SPRING CREEK AT LA BOCA, CO

LOCATION.--Lat 37°00'40", long 107°35'47", in SE¼SW¼ sec.15, T.32 N., R.7 W., La Plata County, Hydrologic Unit 14080101, 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 mi^2 (150 km^2), 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.

REMARKS.--Records good except those for winter period, which are fair. Part of flow is return waste from irrigation.
Several observations of specific conductance and water temperature were obtained and are published in Water Resources Data for Colorado.

AVERAGE DISCHARGE.--31 years, 30.4 ft^3/s (0.861 m^3/s), 22,020 acre-ft/yr (27.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,980 ft^3/s (56.1 m^3/s) Sept. 6, 1970, gage height, 4.62 ft (1.408 m), from rating curve extended above 160 ft^3/s (4.53 m^3/s) on basis of field estimate of peak flow; maximum gage height, 5.98 ft (1.823 m) Mar. 9, 1960 (backwater from ice); minimum discharge, 0.6 ft^3/s (0.017 m^3/s) Nov. 27, 1959.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 180 ft^3/s (5.1 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 31	0030	*298	8.44	1.83	0.558	July 1	2100	202	5.72	1.48	0.451

Minimum daily, 2.0 ft^3/s (0.057 m^3/s) Apr. 23, 25-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	7.4	5.5	5.2	2.6	5.2	3.0	18	76	130	96	80
2	50	6.9	5.5	4.8	2.8	5.6	2.8	27	69	108	78	80
3	47	6.1	5.2	4.8	3.4	9.2	2.8	30	84	80	76	76
4	47	6.1	5.6	4.4	3.4	7.4	2.8	24	82	80	69	74
5	52	6.1	5.6	4.4	3.4	5.6	2.5	23	71	76	71	90
6	55	5.6	5.5	3.8	3.2	4.8	2.5	23	66	69	71	100
7	55	5.2	5.5	4.0	3.0	5.2	2.5	20	66	69	69	86
8	54	5.2	4.8	4.2	3.0	4.8	2.5	22	64	67	72	76
9	57	5.2	5.5	4.0	3.4	4.4	2.5	23	66	69	92	72
10	57	5.2	3.8	4.2	3.2	4.4	2.5	23	62	69	88	67
11	60	4.8	4.8	4.2	2.4	6.1	2.5	23	60	71	98	67
12	64	5.2	5.5	4.0	3.2	17	2.5	25	57	90	90	67
13	60	5.6	6.0	3.6	3.2	16	2.5	26	59	82	82	67
14	64	6.1	5.5	3.4	3.4	7.8	2.5	29	57	78	80	67
15	82	5.2	5.6	3.8	3.6	13	3.5	36	62	86	80	71
16	67	5.2	4.8	4.0	3.6	6.9	3.0	57	62	82	82	66
17	57	5.5	5.0	4.2	3.9	4.8	2.8	71	60	76	76	66
18	59	5.5	5.2	3.6	4.4	3.9	2.5	52	59	72	74	67
19	54	5.5	5.2	3.4	4.4	3.9	2.8	42	57	67	74	69
20	48	5.5	4.8	3.2	4.8	3.9	2.5	45	57	66	71	66
21	50	5.0	4.8	3.2	4.4	4.4	2.2	48	62	62	66	66
22	54	5.0	4.8	3.6	4.4	4.4	2.2	48	62	62	72	67
23	54	5.5	4.8	3.8	3.9	3.9	2.0	54	59	78	76	69
24	54	5.5	4.8	3.6	3.9	3.9	2.2	60	60	82	76	80
25	54	5.6	4.6	3.4	3.9	3.5	2.0	59	60	45	74	74
26	19	5.6	5.0	3.2	4.4	3.5	2.0	54	60	78	72	69
27	19	5.0	5.6	3.0	4.4	3.5	2.0	50	59	84	74	67
28	20	4.8	5.6	3.9	3.9	3.9	36	54	67	72	71	72
29	13	5.0	4.4	3.0	---	3.5	6.9	54	64	69	71	67
30	8.5	5.5	4.8	3.4	---	3.5	6.5	83	64	67	74	67
31	7.4	---	5.2	3.8	---	3.0	---	133	---	74	86	---
TOTAL	1488.9	165.6	159.3	119.1	101.5	180.9	117.5	1336	1908	2360	2401	2172
MEAN	48.0	5.52	5.14	3.84	3.63	5.84	3.92	43.1	63.6	76.1	77.5	72.4
MAX	82	7.4	6.0	5.2	4.8	17	36	133	84	130	98	100
MIN	7.4	4.8	3.8	3.0	2.4	3.0	2.0	18	57	45	66	66
AC-FT	2950	328	316	236	201	359	233	2650	3780	4680	4760	4310

CAL YR 1980 TOTAL 15951.3 MEAN 43.6 MAX 329 MIN 3.8 AC-FT 31640
WTR YR 1981 TOTAL 12509.8 MEAN 34.3 MAX 133 MIN 2.0 AC-FT 24810

09355100 NAVAJO RESERVOIR NEAR ARCHULETA, NM

LOCATION.--Lat 36°48'28", long 107°36'31", in SW¼SE¼ sec.18, T.30 N., R.7 W., San Juan County, Hydrologic Unit 14080101, in gate 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 mi^2 (8,370 km^2), approximately.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--June 1962 to current year. Prior to October 1968 dead storage included.

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 km^3) 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 km^3) 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 hm^3). 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 1,731,000 acre-ft (2.13 km^3) July 2-4, 1973, elevation, 6,087.25 ft (1,855.394 m); minimum daily contents after June 1964 (initial filling period), 234,300 acre-ft (289 hm^3) Mar. 10, 11, 1965, elevation, 5,906.36 ft (1,800.259 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 1,553,000 acre-ft (1.91 km^3) Oct. 1, elevation, 6,075.43 ft (1,851.791 m); minimum daily contents, 1,228,000 acre-ft (1.51 km^3) Apr. 6-13, elevation, 6,050.50 ft (1,844.192 m).

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

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1553000	1505000	1443000	1380000	1298000	1252000	1231000	1249000	1291000	1345000	1315000	1277000
2	1551000	1503000	1440000	1377000	1297000	1252000	1231000	1253000	1291000	1346000	1314000	1275000
3	1549000	1501000	1438000	1375000	1295000	1252000	1230000	1257000	1293000	1343000	1314000	1274000
4	1546000	1500000	1436000	1372000	1293000	1251000	1229000	1261000	1296000	1340000	1313000	1272000
5	1545000	1498000	1433000	1369000	1291000	1250000	1229000	1264000	1297000	1337000	1312000	1272000
6	1543000	1497000	1432000	1365000	1289000	1249000	1228000	1267000	1299000	1333000	1310000	1271000
7	1542000	1495000	1431000	1363000	1287000	1248000	1228000	1269000	1303000	1331000	1308000	1271000
8	1540000	1493000	1430000	1359000	1285000	1248000	1228000	1271000	1306000	1329000	1307000	1269000
9	1538000	1491000	1430000	1357000	1283000	1247000	1228000	1271000	1310000	1328000	1305000	1269000
10	1536000	1489000	1429000	1354000	1281000	1245000	1228000	1272000	1314000	1326000	1304000	1268000
11	1534000	1486000	1429000	1351000	1280000	1245000	1228000	1273000	1319000	1324000	1303000	1267000
12	1532000	1485000	1428000	1348000	1278000	1244000	1228000	1274000	1324000	1324000	1302000	1266000
13	1530000	1484000	1427000	1345000	1275000	1244000	1228000	1274000	1327000	1325000	1302000	1266000
14	1528000	1482000	1426000	1342000	1273000	1243000	1229000	1275000	1330000	1325000	1301000	1265000
15	1527000	1479000	1424000	1339000	1271000	1242000	1229000	1275000	1331000	1326000	1300000	1264000
16	1525000	1477000	1422000	1336000	1269000	1242000	1229000	1275000	1336000	1326000	1298000	1263000
17	1524000	1475000	1420000	1333000	1268000	1241000	1230000	1277000	1339000	1326000	1297000	1262000
18	1523000	1473000	1417000	1330000	1266000	1240000	1230000	1279000	1341000	1326000	1296000	1261000
19	1522000	1470000	1415000	1327000	1264000	1239000	1231000	1280000	1343000	1326000	1296000	1260000
20	1521000	1468000	1413000	1324000	1263000	1238000	1233000	1281000	1344000	1325000	1294000	1259000
21	1519000	1465000	1410000	1321000	1262000	1237000	1234000	1281000	1345000	1324000	1293000	1257000
22	1518000	1463000	1407000	1318000	1261000	1236000	1235000	1282000	1346000	1323000	1292000	1256000
23	1517000	1460000	1404000	1316000	1260000	1235000	1235000	1283000	1347000	1322000	1290000	1255000
24	1516000	1459000	1402000	1314000	1258000	1234000	1236000	1283000	1347000	1322000	1289000	1254000
25	1514000	1456000	1399000	1312000	1257000	1233000	1238000	1284000	1348000	1321000	1287000	1253000
26	1513000	1454000	1396000	1310000	1255000	1233000	1239000	1285000	1349000	1320000	1286000	1252000
27	1512000	1452000	1394000	1309000	1254000	1233000	1241000	1286000	1348000	1320000	1284000	1251000
28	1511000	1450000	1391000	1307000	1253000	1233000	1242000	1286000	1347000	1319000	1282000	1250000
29	1509000	1448000	1388000	1305000	---	1232000	1244000	1288000	1346000	1319000	1281000	1249000
30	1508000	1446000	1385000	1303000	---	1232000	1246000	1289000	1345000	1318000	1279000	1248000
31	1506000	---	1382000	1301000	---	1231000	---	1290000	---	1316000	1278000	---
MAX	1553000	1505000	1443000	1380000	1298000	1252000	1246000	1290000	1349000	1346000	1315000	1277000
MIN	1506000	1446000	1382000	1301000	1253000	1231000	1228000	1249000	1291000	1316000	1278000	1248000
(†)	6072.17	6067.78	6063.00	6056.55	6052.65	6050.81	6052.06	6055.68	6060.11	6057.82	6054.70	6052.20
(‡)	-49000	-60000	-64000	-81000	-48000	-22000	+15000	+44000	+55000	-29000	-38000	-30000

CAL YR 1980 MAX 1670000 MIN 1017000 (‡) +148000
WTR YR 1981 MAX 1553000 MIN 1228000 (‡) -307000

(†) ELEVATION, IN FEET, AT END OF MONTH
(‡) CHANGE IN CONTENTS, IN ACRE-FEET

09355500 SAN JUAN RIVER NEAR ARCHULETA, NM

LOCATION.--Lat 36°48'05", long 107°41'51", in N½ sec.20, T.30 N., R.8 W., San Juan County, Hydrologic Unit 14080101, 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 mi^2 (8,440 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1954 to current year.

REVISED RECORDS.--The annual runoff for the 1958 water year as published in table 2, WSP 1733, is 455,000 acre-ft (561 hm^3). The correct value is 1,455,000 acre-ft (1,790 hm^3).

GAGE.--Water-stage recorder. Altitude of gage is 5,653 ft (1,723 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 Nov. 15, 1964, at site 0.4 mi (0.6 km) upstream at altitude 5 ft (1.5 m) higher. Prior to Nov. 28, 1966, at altitude 2.0 ft (0.610 m) higher.

AVERAGE DISCHARGE.--7 years (water years 1956-62), 1,304 ft^3/s (36.93 m^3/s), 944,700 acre-ft/yr (1,160 hm^3/yr) prior to closure of Navajo Dam.
19 years (water years 1963-81), 1,093 ft^3/s (30.95 m^3/s), 791,900 acre-ft/yr (976 hm^3/yr) since closure of Navajo Dam.

REMARKS.--Water-discharge records good. Flow completely regulated by Navajo Reservoir (station 09355100) 7 mi (11 km) upstream except for minor inflow from 30 mi^2 (80 km^2) intervening drainage area. Highwater diversions through Azotea tunnel (station 08284160) into Rio Grande Basin began in March 1971. Diversions for irrigation of about 47,000 acres (190 km^2) above station. Releases from Navajo Reservoir, beginning in January 1976, for use on Navajo Indian Irrigation Project bypass gage in tunnel on left bank. See tabulation below for monthly and annual releases as furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,900 ft^3/s (535 m^3/s) July 27, 1957, gage height, 11.00 ft (3.353 m), site and datum then in use; minimum determined, 8 ft^3/s (0.23 m^3/s) Feb. 28, 1963. Maximum discharge since construction of Navajo Dam in 1962, 6,500 ft^3/s (184 m^3/s) June 20, 1965, gage height, 4.57 ft (1.393 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,860 ft^3/s (52.7 m^3/s) Jan. 21, gage height, 4.57 ft (1.393 m); minimum daily, 371 ft^3/s (10.5 m^3/s) Apr. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1170	1300	1520	1780	1250	708	371	431	541	953	743	870
2	1170	1300	1520	1790	1260	698	385	428	539	847	736	874
3	1160	1300	1530	1790	1250	670	395	426	547	954	741	873
4	1160	1300	1530	1790	1250	661	396	423	542	944	748	874
5	1160	1310	1470	1800	1250	638	400	427	541	951	887	889
6	439	1320	1110	1800	1260	678	413	422	541	950	959	884
7	815	1330	702	1800	1260	683	420	421	544	954	893	885
8	1210	1330	486	1810	1260	685	425	420	541	953	887	885
9	1220	1340	490	1820	1270	692	426	428	543	954	894	831
10	1220	1350	498	1820	1270	693	439	427	542	953	886	867
11	1210	1350	505	1820	1270	708	445	426	543	955	884	873
12	652	1350	552	1820	1270	702	450	424	542	961	889	878
13	1190	1360	815	1820	1270	710	459	424	541	803	884	890
14	1210	1410	1200	1820	1290	719	463	451	542	647	888	887
15	1210	1460	1470	1820	1280	719	475	553	540	657	887	892
16	1210	1470	1480	1820	1280	723	481	555	540	669	886	897
17	1210	1470	1490	1820	1290	728	486	558	544	676	901	900
18	1220	1470	1490	1820	1100	735	494	559	546	678	882	898
19	1240	1490	1590	1820	948	735	500	558	546	687	887	902
20	1250	1490	1730	1820	951	742	507	555	543	692	882	902
21	1260	1490	1730	1830	953	738	513	557	546	696	885	906
22	1270	1490	1730	1650	955	750	516	556	546	710	887	907
23	1260	1500	1740	1250	963	751	500	555	542	710	879	923
24	1260	1500	1740	1250	965	753	437	562	545	716	880	925
25	1260	1490	1740	1250	969	513	420	561	546	719	882	925
26	1280	1490	1740	1250	829	392	420	560	613	726	874	924
27	1280	1490	1750	1250	710	463	426	552	687	726	874	924
28	1280	1500	1770	1250	713	412	426	538	692	730	871	925
29	1280	1510	1780	1250	---	422	423	543	734	736	871	927
30	1290	1510	1780	1250	---	433	427	545	823	745	872	930
31	1290	---	1780	1250	---	429	---	542	---	740	870	---
TOTAL	36336	42470	42458	50930	31586	20083	13338	15387	17122	24792	26889	26867
MEAN	1172	1416	1370	1643	1128	648	445	496	571	800	867	896
MAX	1290	1510	1780	1830	1290	753	516	562	823	961	959	930
MIN	439	1300	486	1250	710	392	371	420	539	647	736	831
AC-FT	72070	84240	84220	101000	62650	39830	26460	30520	33960	49170	53330	53290
(†)	10830	0	0	0	0	121	4590	11890	19530	22480	22140	10210

CAL YR 1980 TOTAL 544351 MEAN 1487 MAX 3070 MIN 439 AC-FT 1080000
WTR YR 1981 TOTAL 348258 MEAN 954 MAX 1830 MIN 371 AC-FT 690800

(†) DISCHARGE, IN ACRE-FT, THROUGH NAVAJO INDIAN IRRIGATION PROJECT TUNNEL.

09355500 SAN JUAN RIVER NEAR ARCHULETA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
JAN												
08...	1010	1810	230	8.2	7.0	6.5	15	13.1	79	7	--	24
APR												
06...	1530	405	258	7.6	19.0	9.5	4.4	--	92	--	28	28
JUN												
26...	0915	532	240	7.2	25.0	10.5	--	9.2	97	--	31	30

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
JAN											
08...	4.6	11	.5	1.6	72	36	1.8	.2	11	134	.14
APR											
06...	5.3	13	.6	1.6	64	45	1.7	.1	9.5	143	.01
JUN											
26...	5.3	12	.5	1.7	66	46	11	.2	10	157	.02

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
JAN											
08...	.17	.080	--	.56	.78	.060	.010	10	30	4	--
APR											
06...	.00	.060	--	1.4	1.5	.020	.000	10	20	6	.4
JUN											
26...	.05	.100	.140	.69	.81	.030	.020	220	30	7	.2

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
JAN										
08...	1010	2	1	100	70	10	0	2	0	0
APR										
06...	1530	2	2	100	70	10	0	1	20	20
JUN										
26...	0915	2	1	100	100	220	3	<1	0	0

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)
JAN									
08...	1	<3	22	3	450	30	8	0	20
APR									
06...	0	<3	1	3	220	20	0	0	10
JUN									
26...	2	<3	5	3	110	30	9	1	10

09355500 SAN JUAN RIVER NEAR ARCHULETA, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
JAN									
08...	4	.3	.0	0	0	0	0	30	9
APR									
06...	6	.3	.0	0	1	1	2	20	7
JUN									
26...	7	1.1	1.3	0	1	0	0	80	50

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DISSOLVED, EXTRACTION (UG/L) (80020)
APR									
06...	1530	<3.1	<.4	1.9	.9	1.9	.9	.11	.49

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JAN					
08...	1010	1810	6.5	15	78
APR					
06...	1530	405	9.5	6	94
JUN					
26...	0915	532	10.5	4	91

SAN JUAN RIVER BASIN

09356565 CANON LARGO WASH NEAR BLANCO, NM

LOCATION.--Lat 36°41'24", long 107°45'21", in NW¼NW¼ sec.35, T.29 N., R.9 W., San Juan County, Hydrologic Unit 14080103, on left bank, at upstream side of country highway bridge, 1.2 mi (1.9 km) upstream from Medina Canyon, 4.0 mi (6.4 km) upstream from mouth, and 5.0 mi (8.0 km) southeast of Blanco.

DRAINAGE AREA.--1,700 mi^2 (4,400 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,644 ft (1,720 m), from topographic map.

REMARKS.--Water-discharge records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,970 ft^3/s (141 m^3/s) Mar. 8, 1979, gage height, 3.70 ft (1.128 m), from rating curve extended above 620 ft^3/s (18 m^3/s); maximum gage height, 5.90 ft (1.798 m) July 1, 1981; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,000 ft^3/s (28 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
July 1	unknown	*3,200	90.6	5.90	1.798	July 26	2000	1,630	46.2	4.61	1.405
July 9	2315	1,060	30.0	3.99	1.216	Sept. 8	0130	2,020	57.2	5.00	1.524
July 15	0715	1,950	55.2	4.92	1.500						

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.04	.03	.07	.08	.92	.15	.00	.02	631	.00	.00
2	.00	.03	.04	.06	.01	1.4	.03	.00	.03	59	.00	.00
3	.00	.04	.02	.08	.05	1.6	.02	.00	.02	5.0	.00	.00
4	.00	.05	.03	.07	.07	.89	.03	.00	.00	1.0	.00	1.7
5	.00	.05	.02	.05	.05	.90	.06	.00	.00	.10	.00	140
6	.00	.05	.03	.04	.10	.75	.04	.00	.00	.00	.00	137
7	.00	.05	.08	.04	.11	.71	.00	.00	.00	.00	.00	76
8	.00	.05	.03	.03	.12	.70	.00	.00	.00	.02	18	276
9	.00	.05	.02	.03	.15	.64	.00	.00	.00	69	.00	.85
10	.00	.05	.03	.03	.19	.64	.02	.01	.00	72	57	37
11	.00	.05	.02	.02	.20	1.1	.03	.00	.00	185	2.8	32
12	.00	.05	.06	.02	.22	.80	.04	.01	.00	121	1.2	67
13	.00	.05	.02	.02	.26	.64	.04	.01	.00	34	.58	12
14	.00	.05	.02	.02	.28	1.4	.04	.01	.00	.53	.15	24
15	.06	.06	.01	.01	.30	.96	.06	.00	.00	176	.00	11
16	.05	.05	.02	.01	.33	6.2	.04	.09	.00	35	.00	.00
17	.03	.05	.02	.01	.35	1.6	.02	.07	.00	28	1.4	.00
18	.02	.05	.02	.01	.35	.84	.10	.02	.00	1.2	96	.00
19	.01	.06	.02	.01	.39	.93	.07	.00	.00	.04	.00	.00
20	.00	.01	.02	.02	.43	.78	.03	.00	.00	.00	.00	.00
21	.00	.05	.02	.02	.52	.96	.02	.00	.00	.00	.00	.00
22	.00	.06	.02	.02	.53	.60	.00	.00	.00	.00	.00	.00
23	.00	.05	.01	.03	.53	.39	.00	.00	.00	.00	.00	.00
24	.00	.05	.02	.09	.64	.31	.00	.00	.00	.00	.00	.00
25	.00	.04	.02	.06	.58	.32	.00	.00	.00	.00	.00	.00
26	.00	.03	.03	.03	.68	.24	.00	.00	.00	91	.00	.00
27	.08	.03	.03	.05	.84	.31	.00	.00	.00	4.5	.00	.00
28	.06	.04	.03	.10	.86	.52	.00	.00	.00	.00	.00	.00
29	.04	.04	.04	.11	---	.33	.00	.06	.00	.00	.00	.00
30	.04	.04	.05	.08	---	.31	.00	.01	48	.00	.00	.00
31	.04	---	.05	.15	---	.18	---	.01	---	.00	.00	---
TOTAL	.43	1.37	.88	1.39	9.22	28.87	.84	.30	48.07	1513.39	177.13	814.55
MEAN	.014	.046	.028	.045	.33	.93	.028	.010	1.60	48.8	5.71	27.2
MAX	.08	.06	.08	.15	.86	6.2	.15	.09	48	631	96	276
MIN	.00	.01	.01	.01	.01	.18	.00	.00	.00	.00	.00	.00
AC-FT	.9	2.7	1.7	2.8	18	57	1.7	.6	95	3000	351	1620

CAL YR 1980 TOTAL 2588.20 MEAN 7.07 MAX 618 MIN .00 AC-FT 5130
WTR YR 1981 TOTAL 2596.44 MEAN 7.11 MAX 631 MIN .00 AC-FT 5150

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

REMARKS.--Under the heading SAMPLE SOURCE numberical values are used to indicate method of sampling; 40 indicates single-stage sampler.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
JAN											
13...	0935	.02	9600	8.4	-.5	.5	10.2	1000	240	96	2100
MAR											
03...	1545	1.4	4200	8.7	7.5	9.0	--	970	280	65	1200
JUL											
01...	2000	E2800	1100	7.3	--	--	--	--	--	--	--
01...	2015	E1000	1500	7.3	--	--	--	--	--	--	--
02...	1500	16	860	8.2	29.0	29.0	--	61	22	1.4	170
15...	0700	E2800	1300	6.8	--	--	--	--	--	--	--
26...	2015	E1000	1550	6.8	--	--	--	--	--	--	--
SEP											
09...	1015	2.4	1300	8.0	27.0	19.0	--	320	110	11	210

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
JAN											
13...	29	4.9	--	--	5500	48	1.7	11	8180	--	.09
MAR											
03...	17	5.9	--	--	--	--	--	9.3	--	.17	.21
JUL											
01...	--	--	190	156	--	--	--	--	--	--	--
01...	--	--	140	115	--	--	--	--	--	--	--
02...	9.5	3.2	--	--	300	5.7	1.2	14	615	--	.86
15...	--	--	320	262	--	--	--	--	--	--	--
26...	--	--	330	271	--	--	--	--	--	--	--
SEP											
09...	5.3	4.7	--	--	590	10	.9	8.5	1070	1.0	.98

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
JAN										
13...	.170	1.0	--	.050	470	90	180	27	--	--
MAR										
03...	.150	1.2	1.5	.190	--	90	410	17	1.5	--
JUL										
01...	--	--	--	--	--	40	1900	--	--	40.00
01...	--	--	--	--	--	360	4400	--	--	40.00
02...	.160	45	--	2.90	270	40	0	6.0	98	--
15...	--	--	--	--	--	640	2700	--	--	40.00
26...	--	--	--	--	--	970	3500	--	--	40.00
SEP										
09...	.090	69	70	6.60	60	17	<1	12	310	--

09356565 CANON LARGO WASH NEAR BLANCO, NM--Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
JAN											
13...	0935	2	2	100	100	10	0	470	0	0	20
MAR											
03...	1545	5	3	300	200	0	0	--	0	0	4
JUL											
01...	2000	--	--	--	--	--	--	--	--	--	--
01...	2015	--	--	--	--	--	--	--	--	--	--
02...	1500	150	--	10000	100	50	--	270	2	--	170
26...	2015	--	--	--	--	--	--	--	--	--	--
SEP											
09...	1015	75	3	1200	240	20	<1	60	5	<1	400

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
JAN											
13...	10	3	0	300	90	1	3	120	110	180	180
MAR											
03...	20	20	4	9000	90	17	0	90	80	670	410
JUL											
01...	--	--	--	600000	40	--	--	--	--	46000	1900
01...	--	--	--	680000	360	--	--	--	--	43000	4400
02...	--	590	--	250000	40	520	--	340	20	12000	0
26...	--	--	--	890000	970	--	--	--	--	48000	3500
SEP											
09...	10	1200	5	440000	17	310	3	630	23	25000	<1

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
JAN											
13...	.0	.1	2	0	0	0	7800	7700	20	20	--
MAR											
03...	.1	.6	7	2	0	0	3200	3300	60	30	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--
02...	3.2	--	220	--	20	--	7200	400	940	--	--
26...	--	--	--	--	--	--	--	--	--	--	40.00
SEP											
09...	3.0	.3	640	2	12	2	6300	1300	2400	48	--

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G) (01148)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)
SEP												
09...	1015	1	<1	1	10	1	700	0	50	.01	0	30

09356565 CANON LARGO WASH NEAR BLANCO, NM--Continued

WATER-QUALITY RECORDS

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
SEP									
09...	1015	<27	<1000	14	690	14	660	.18	6.4

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
JAN						
13...	0935	.02	.5	42	--	--
MAR						
03...	1545	1.4	9.0	749	83	--
JUL						
01...	0400	E1000	--	274000	54	40.00
01...	0430	E2800	--	340000	38	40.00
02...	1500	16	29.0	75500	95	--
15...	0700	E2800	--	209000	57	40.00
26...	2015	E1000	--	304000	56	40.00
SEP						
09...	1015	2.4	19.0	53700	100	--

SAN JUAN RIVER BASIN

09357100 SAN JUAN RIVER AT HAMMOND BRIDGE, NEAR BLOOMFIELD, NM

LOCATION.--Lat 36°41'22", long 108°05'42", in NE¼NE¼ sec.33, T.29 N., R.12 W., San Juan County, Hydrologic Unit 14080101, on downstream end of center pier of Hammond Bridge, 0.9 mi (1.4 km) south of State Highway 17, 1.2 mi (1.9 km) upstream from Gallegos Canyon, 4.1 mi (6.6 km) downstream from Kutz Canyon, 5.0 mi (8.0 km) southwest of Bloomfield and at mile 261 (420 km).

DRAINAGE AREA.--5,540 mi^2 (14,350 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1910 to September 1911, August 1927 to December 1931, November 1955 to January 1964 (published as "at Bloomfield"), October 1977 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,330 ft (1,625 m), from topographic map. See WSP 1925 for history of changes prior to Oct. 1, 1977. Oct. 1, 1977 to May 3, 1978, at site 6.5 mi (10.5 km) upstream at different datum.

REMARKS.--Water-discharge records fair. Since June 1962 flow can be substantially controlled by operation of Navajo Reservoir (station 09355100) 41 mi (66 km) upstream. Diversions above station for irrigation about 80 mi^2 (207 km^2). Hammond Main Canal bypasses gage on left bank. The bypass flow is not included in the record.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge determined, 20,500 ft^3/s (581 m^3/s) July 27, 1957; maximum gage height, 11.50 ft (3.505 m) Aug. 11, 1929, site and datum then in use (discharge not determined); minimum daily, 50 ft^3/s (1.42 m^3/s) Sept. 15, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in October 1911 at this station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,150 ft^3/s (118 m^3/s) July 1, gage height, 5.42 ft (1.652 m); minimum daily discharge, 291 ft^3/s (8.24 m^3/s) May 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	946	1180	1560	1770	1190	735	492	311	424	2970	582	741
2	947	1200	1560	1780	1180	744	449	491	422	1480	564	737
3	948	1210	1580	1770	1190	780	470	414	477	772	552	742
4	952	1210	1680	1780	1190	752	466	315	495	800	546	747
5	958	1230	1720	1780	1190	751	477	306	452	779	577	874
6	380	1230	1340	1780	1200	760	478	301	446	737	735	865
7	390	1240	978	1770	1200	766	472	301	445	800	659	776
8	959	1250	654	1780	1210	765	475	318	443	779	704	1100
9	981	1290	470	1770	1240	800	463	372	438	779	676	780
10	1010	1320	445	1770	1230	797	449	322	427	949	834	763
11	1020	1360	440	1770	1230	833	441	306	419	880	773	827
12	700	1350	416	1780	1230	826	434	291	414	962	723	807
13	800	1360	508	1800	1240	812	438	308	418	970	706	804
14	1010	1380	980	1780	1250	871	431	299	413	745	687	830
15	1080	1440	1520	1770	1260	884	436	371	407	710	697	823
16	1050	1520	1500	1780	1260	846	426	465	396	930	696	818
17	1040	1530	1510	1780	1260	833	419	493	388	800	703	852
18	1080	1460	1530	1780	1210	819	447	451	377	720	769	870
19	1080	1470	1570	1780	938	795	464	443	376	700	703	865
20	1090	1480	1770	1780	939	823	438	440	369	588	705	882
21	1080	1480	1780	1740	958	851	462	435	361	560	705	922
22	1130	1610	1780	1750	964	817	433	421	365	580	718	896
23	1130	1530	1770	1200	957	832	426	429	365	550	721	889
24	1140	1590	1790	1160	952	831	370	410	360	570	715	901
25	1160	1550	1790	1160	950	828	338	420	361	570	710	898
26	1170	1550	1790	1160	926	388	325	413	366	650	723	939
27	1190	1550	1790	1150	731	566	328	404	500	880	724	904
28	1180	1540	1790	1170	730	530	338	404	508	540	731	904
29	1180	1550	1790	1180	---	514	315	401	550	552	736	896
30	1160	1560	1780	1170	---	522	311	415	647	552	726	896
31	1170	---	1780	1200	---	540	---	417	---	552	729	---
TOTAL	31111	42220	43361	49590	31005	23211	12711	11887	12829	25406	21529	25548
MEAN	1004	1407	1399	1600	1107	749	424	383	428	820	694	852
MAX	1190	1610	1790	1800	1260	884	492	493	647	2970	834	1100
MIN	380	1180	416	1150	730	388	311	291	360	540	546	737
AC-FT	61710	83740	86010	98360	61500	46040	25210	23580	25450	50390	42700	50670

CAL YR 1980 TOTAL 511490 MEAN 1398 MAX 2880 MIN 380 AC-FT 1015000
WTR YR 1981 TOTAL 330408 MEAN 905 MAX 2970 MIN 291 AC-FT 655400

09357100 SAN JUAN RIVER AT HAMMOND BRIDGE NEAR BLOOMFIELD, NM--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

REMARKS.--Samples collected at 09357000 San Juan River at Bloomfield until May 1978.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT											
30...	1330	1210	339	8.7	13.0	8.0	12.2	110	34	35	6.4
NOV											
24...	1400	1560	315	8.1	3.5	7.0	10.9	110	27	32	6.0
DEC											
15...	1100	1520	306	8.0	6.0	7.0	10.6	100	31	31	6.2
JAN											
19...	1415	1830	260	8.1	9.5	6.0	10.6	100	26	32	5.6
FEB											
23...	1315	969	321	8.4	11.0	8.0	11.3	120	23	36	6.4
MAR											
23...	1200	843	341	8.4	10.0	11.0	10.4	120	39	37	6.3
APR											
20...	1200	430	500	8.3	24.0	16.0	10.9	150	40	47	8.0
MAY											
26...	1745	413	440	8.2	22.5	18.5	8.0	150	62	47	7.1
JUN											
23...	1400	373	432	8.5	37.0	24.5	9.1	140	50	45	7.2
JUL											
20...	1200	588	360	7.8	33.0	21.0	--	120	40	38	6.0
AUG											
24...	1130	759	313	8.3	31.0	14.5	8.9	120	41	36	6.1
SEP											
08...	1415	1030	940	7.6	26.5	18.5	7.0	200	87	67	7.3

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
OCT											
30...	22	.9	2.0	86	6	81	80	2.5	.2	9.8	209
NOV											
24...	20	.9	2.0	95	0	78	76	2.9	.2	9.2	201
DEC											
15...	20	.9	1.9	88	0	72	65	2.3	.2	8.7	198
JAN											
19...	18	.8	1.6	94	0	77	62	2.3	.3	11	168
FEB											
23...	25	1.0	1.7	98	8	93	86	2.7	.2	9.8	214
MAR											
23...	27	1.1	1.7	88	4	79	88	2.6	.2	9.6	229
APR											
20...	45	1.6	2.0	140	0	110	150	4.1	.3	9.1	341
MAY											
26...	35	1.3	2.2	100	0	85	130	11	.2	8.4	287
JUN											
23...	34	1.2	2.1	110	1	92	130	3.3	.2	8.9	289
JUL											
20...	25	1.0	1.7	97	0	80	92	2.7	.1	10	228
AUG											
24...	24	1.0	1.7	96	0	79	82	2.4	.2	10	202
SEP											
08...	120	3.8	4.1	130	0	110	320	5.5	.5	9.8	613

09357100 SAN JUAN RIVER AT HAMMOND BRIDGE NEAR BLOOMFIELD, NM--Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT										
30...	206	--	--	--	--	50	30	6	--	--
NOV										
24...	196	.13	.030	.83	.070	40	20	9	4.7	.5
DEC										
15...	179	--	--	--	--	10	20	10	--	--
JAN										
19...	179	--	--	--	--	10	40	10	--	--
FEB										
23...	224	.01	.060	.75	.070	0	40	30	4.8	.5
MAR										
23...	220	--	--	--	--	20	30	20	--	--
APR										
20...	332	--	--	--	--	30	20	50	--	--
MAY										
26...	293	.09	.080	.63	.060	20	<10	20	7.2	--
JUN										
23...	286	--	--	--	--	20	10	10	--	--
JUL										
20...	224	--	--	--	--	20	20	7	--	--
AUG										
24...	210	.03	.060	.39	.190	20	20	4	2.7	.8
SEP										
08...	600	--	--	--	--	50	51	52	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
OCT											
30...	1330	--	--	--	--	--	--	50	--	--	--
NOV											
24...	1400	1	1	100	70	0	<1	40	1	<1	0
DEC											
15...	1100	--	--	--	--	--	--	10	--	--	--
JAN											
19...	1415	--	--	--	--	--	--	10	--	--	--
FEB											
23...	1315	--	--	--	--	--	--	0	--	--	--
MAR											
23...	1200	--	--	--	--	--	--	20	--	--	--
APR											
20...	1200	--	--	--	--	--	--	30	--	--	--
MAY											
26...	1745	2	1	100	70	0	<1	20	0	<1	10
JUN											
23...	1400	--	--	--	--	--	--	20	--	--	--
JUL											
20...	1200	--	--	--	--	--	--	20	--	--	--
AUG											
24...	1130	--	--	--	--	--	--	20	--	--	--
SEP											
08...	1415	--	--	--	--	--	--	50	--	--	--

09357100 SAN JUAN RIVER AT HAMMOND BRIDGE NEAR BLOOMFIELD, NM--Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI) (01132)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
OCT 30...	--	--	--	1400	30	--	--	--	--	70	6
NOV 24...	0	15	3	1600	20	10	0	10	10	60	9
DEC 15...	--	--	--	3300	20	--	--	--	--	170	10
JAN 19...	--	--	--	1900	40	--	--	--	--	170	10
FEB 23...	--	--	--	540	40	--	--	--	--	50	30
MAR 23...	--	--	--	820	30	--	--	--	--	70	20
APR 20...	--	--	--	1900	20	--	--	--	--	130	50
MAY 26...	10	4	2	870	<10	3	2	20	20	70	20
JUN 23...	--	--	--	540	10	--	--	--	--	50	10
JUL 20...	--	--	--	8900	20	--	--	--	--	310	7
AUG 24...	--	--	--	15000	20	--	--	--	--	590	4
SEP 08...	--	--	--	370000	51	--	--	--	--	16000	52

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR) (01082)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT 30...	--	--	--	--	--	--	--	--	--	--
NOV 24...	.0	.0	3	0	0	1	310	380	70	9
DEC 15...	--	--	--	--	--	--	--	--	--	--
JAN 19...	--	--	--	--	--	--	--	--	--	--
FEB 23...	--	--	--	--	--	--	--	--	--	--
MAR 23...	--	--	--	--	--	--	--	--	--	--
APR 20...	--	--	--	--	--	--	--	--	--	--
MAY 26...	.2	.0	1	1	0	0	530	600	60	4
JUN 23...	--	--	--	--	--	--	--	--	--	--
JUL 20...	--	--	--	--	--	--	--	--	--	--
AUG 24...	--	--	--	--	--	--	--	--	--	--
SEP 08...	--	--	--	--	--	--	--	--	--	--

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DISSOLVED, EXTRACTION (UG/L) (80020)
AUG 24...	1130	<4.9	12	3.0	7.2	2.9	6.9	.05	.64

SAN JUAN RIVER BASIN

09357100 SAN JUAN RIVER AT HAMMOND BRIDGE NEAR BLOOMFIELD, NM--Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
OCT				
30...	1330	1210	8.0	258
NOV				
24...	1400	1560	7.0	317
DEC				
15...	1100	1520	7.0	856
JAN				
19...	1415	1830	6.0	144
FEB				
23...	1315	969	8.0	30
MAR				
23...	1200	843	11.0	51
APR				
20...	1200	430	16.0	94
MAY				
26...	1745	413	18.5	41
JUN				
23...	1400	373	24.5	34
JUL				
14...	1030	743	18.0	4410
20...	1200	588	21.0	1080
AUG				
24...	1130	759	14.5	1770
SEP				
08...	1415	1030	18.5	44100
21...	1100	890	12.0	1930

09357250 GALLEGOS CANYON WASH NEAR FARMINGTON, NM

LOCATION.--Lat 36°38'27", long 108°07'33", in SE¼SE¼ sec.20, T.28 N., R.12 W., San Juan County, Hydrologic Unit 14080101, on right bank 100 ft (30 km) downstream from Navajo Indian Irrigation Project Highway bridge, 4.0 mi (6.4 km) upstream from mouth, and 7.0 mi (11.3 km) southeast of Farmington.

DRAINAGE AREA.--290 mi^2 (751 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,550 ft (1,692 m), from topographic map.

REMARKS.--Water-discharge records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about, 900 ft^3/s (25.5 m^3/s) Jan. 17, 1979, gage height, 3.20 ft (0.975 m); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 86 ft^3/s (2.44 m^3/s) Apr. 6, gage height, 2.66 ft (0.811 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.12	.33	.25	.61	.00	.00	.00	13	21	.00
2	.00	.00	.11	.34	.25	.73	.00	.00	.00	14	.53	.80
3	.00	.00	.12	.34	.25	3.0	.00	.00	2.1	6.4	.00	.00
4	.00	.00	.12	.35	.24	1.2	.00	.00	4.8	.00	.00	.00
5	.00	.34	.11	.35	.24	.20	.00	.00	.19	.00	.00	.70
6	.00	.42	.10	.36	.23	.00	7.8	.00	.00	.00	.00	.80
7	.00	.00	.10	.37	.22	2.3	.17	.00	.00	.00	.00	.20
8	.00	.00	.09	.38	.21	1.2	.00	.00	.00	.00	.00	.00
9	.00	.00	.09	.39	.20	.20	.00	.00	.00	8.1	.00	.00
10	.00	.00	.09	.40	.18	1.4	.00	.00	.00	14	.00	.00
11	.00	.00	.09	.41	.16	3.0	.00	.00	.00	2.4	.00	.00
12	.00	.00	.10	.41	.14	4.4	.00	.00	.00	.68	24	.00
13	.00	.00	.11	.41	.13	3.0	.00	.00	.00	11	.00	.00
14	.00	.00	.12	.40	.14	2.8	.00	.00	.00	20	.00	.00
15	.00	.00	.15	.40	.14	3.6	9.6	.00	.00	7.3	.00	.00
16	.00	.00	.18	.38	.16	1.9	3.2	.00	.00	13	.00	.00
17	.00	.00	.20	.37	.16	.00	.00	.00	.00	20	.00	1.2
18	.00	.00	.22	.36	.17	.00	5.2	.00	.00	1.7	.00	.00
19	.00	.00	.23	.35	.19	.00	6.2	.00	.00	.00	.00	.00
20	.00	.00	.24	.34	.19	2.1	.00	.00	.00	.00	.00	.00
21	.00	.00	.25	.32	.20	2.7	.00	.00	.00	.00	.00	.00
22	.00	.00	.26	.31	.00	.00	4.7	.00	.00	.00	.00	.00
23	1.3	.00	.27	.30	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.28	.29	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.29	.28	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.29	.28	.10	.00	.00	.00	.00	6.7	.00	.00
27	5.2	.09	.30	.28	.19	.00	.18	.00	.00	6.9	.00	.00
28	18	.10	.31	.27	.50	3.3	10	.00	.00	.00	.00	.00
29	15	.11	.31	.26	---	2.0	.00	2.0	.00	.00	.00	.00
30	4.4	.12	.32	.26	---	.00	.00	7.0	.00	.00	.00	.00
31	.00	---	.32	.26	---	.00	---	.00	---	.11	.00	---
TOTAL	43.90	1.18	5.89	10.55	4.84	39.64	47.05	9.00	7.09	145.29	45.53	3.70
MEAN	1.42	.039	.19	.34	.17	1.28	1.57	.29	.24	4.69	1.47	.12
MAX	18	.42	.32	.41	.50	4.4	10	7.0	4.8	20	24	1.2
MIN	.00	.00	.09	.26	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	87	2.3	12	21	9.6	79	93	18	14	288	90	7.3

CAL YR 1980 TOTAL 260.95 MEAN .71 MAX 25 MIN .00 AC-FT 518
WTR YR 1981 TOTAL 363.66 MEAN 1.00 MAX 24 MIN .00 AC-FT 721

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
JAN											
12...	1440	.41	1920	8.7	9.0	4.0	14.0	230	79	6.8	390
MAR											
03...	1130	.83	2850	8.3	5.0	7.0	--	270	90	10	520
JUL											
02...	1200	2.5	610	8.4	28.0	29.5	--	26	9.4	.6	130
26...	1900	E300	1500	6.9	--	--	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
JAN											
12...	11	3.0	--	--	820	25	1.1	11	1470	.20	.21
MAR											
03...	14	4.1	--	--	1300	47	1.4	13	2110	--	.23
JUL											
02...	11	2.3	--	--	190	8.1	.8	14	436	.65	1.0
26...	--	--	270	221	--	--	--	--	--	--	--

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
JAN										
12...	.070	1.0	1.3	.060	230	70	10	23	.3	--
MAR										
03...	.000	.95	--	.130	230	100	0	12	1.2	--
JUL										
02...	.180	14	15	1.90	260	110	10	7.3	28	--
26...	--	--	--	--	--	60	2100	--	--	40.00

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
JAN											
12...	1440	2	2	100	0	10	<1	230	0	<1	10
MAR											
03...	1130	4	3	200	100	0	0	230	0	0	20
JUL											
02...	1200	45	--	3100	100	20	--	260	1	--	80
26...	1900	--	--	--	--	--	--	--	--	--	--

09357250 GALLEGOS CANYON WASH NEAR FARMINGTON, NM--Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI) (01132)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
JAN											
12...	0	4	1	460	70	1	1	30	40	40	10
MAR											
03...	20	8	4	4800	100	11	0	50	50	170	0
JUL											
02...	--	290	--	150000	110	200	--	150	20	3700	10
26...	--	--	--	380000	60	--	--	--	--	26000	2100

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR) (01082)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
JAN											
12...	.0	.0	1	2	3	3	1200	1200	20	20	--
MAR											
03...	.0	.5	3	7	4	0	1300	1800	30	50	--
JUL											
02...	2.5	--	78	--	10	--	3100	220	570	--	--
26...	--	--	--	--	--	--	--	--	--	--	40.00

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
JAN						
12...	1440	.41	4.0	46	--	--
MAR						
03...	1130	.83	7.0	649	43	--
JUL						
02...	1200	2.5	29.5	17400	99	--
26...	1900	E300	--	123000	55	40.00

09363500 ANIMAS RIVER NEAR CEDAR HILL, NM

LOCATION.--Lat 37°02'17", long 107°52'25", in sec.7, T.32 N., R.9 W., La Plata County, Colorado, Hydrologic Unit 14080104, 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, 8.5 mi (13.7 km) north of Cedar Hill, and at mile 32.9 (52.9 km).

DRAINAGE AREA.--1,090 mi^2 (2,820 km^2), approximately.

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

REVISED RECORDS.--WSP 1563: 1940 and 1946 (monthly figures only).

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.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 20,000 acres (81 km^2) 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 hm^3). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--48 years, 892 ft^3/s (25.26 m^3/s), 646,300 acre-ft/yr (797 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,100 ft^3/s (371 m^3/s) June 19, 1949, gage height, 11.45 ft (3.490 m); minimum, 63 ft^3/s (1.78 m^3/s) Jan. 21, 1935.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in October 1911 at this location.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,060 ft^3/s (115 m^3/s) at 0945 hours June 8, gage height, 7.30 ft (2.225 m), no other peak above base of 4,000 ft^3/s (110 m^3/s); minimum daily, 150 ft^3/s (4.25 m^3/s) Feb. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	309	291	278	230	170	216	209	1570	2280	636	663	423
2	302	290	278	234	150	220	209	1620	2340	630	630	408
3	322	284	274	238	155	238	220	1840	2610	624	587	374
4	315	279	270	246	165	223	223	2010	2410	618	548	367
5	283	283	266	246	175	212	209	1550	2440	599	479	410
6	275	277	269	242	190	220	202	1380	2980	567	435	428
7	265	274	278	209	195	220	212	1220	3310	528	396	463
8	268	277	276	202	198	205	230	1050	3560	481	363	462
9	271	274	251	198	192	202	234	927	3640	583	368	440
10	268	274	236	192	198	205	226	823	3510	658	365	431
11	270	271	250	192	190	226	278	767	3500	758	437	422
12	277	265	250	198	185	238	346	697	3400	837	654	426
13	280	271	254	195	192	226	355	648	3110	1250	630	475
14	297	281	242	192	195	238	350	594	2690	1490	552	543
15	358	283	238	189	198	238	410	603	2200	1710	474	593
16	390	278	242	185	198	238	410	669	1960	1590	450	573
17	359	276	242	189	195	223	425	679	1890	1350	462	533
18	342	278	246	189	195	209	504	623	1920	1170	450	495
19	327	270	246	182	195	189	636	610	1810	966	420	465
20	320	282	238	192	192	192	642	656	1870	817	396	439
21	316	286	234	195	192	212	594	694	1860	709	382	413
22	312	290	230	192	189	212	594	667	1800	635	364	392
23	307	290	230	189	182	212	684	658	1720	608	391	379
24	298	302	250	192	185	223	795	686	1530	675	382	415
25	292	294	223	189	195	223	954	788	983	706	373	433
26	295	270	223	182	206	212	1120	946	762	775	364	393
27	314	270	234	195	209	220	1220	1200	710	1070	352	364
28	320	270	230	185	206	223	1200	1690	711	926	349	352
29	302	262	242	195	---	212	1270	2170	692	814	356	337
30	290	270	242	185	---	209	1450	2140	652	731	341	332
31	290	---	234	185	---	209	---	2380	---	696	353	---
TOTAL	9434	8362	7696	6224	5287	6745	16411	34555	64850	26207	13766	12980
MEAN	304	279	248	201	189	218	547	1115	2162	845	444	433
MAX	390	302	278	246	209	238	1450	2380	3640	1710	663	593
MIN	265	262	223	182	150	189	202	594	652	481	341	332
AC-FT	18710	16590	15270	12350	10490	13380	32550	68540	128600	51980	27300	25750

CAL YR 1980	TOTAL	449728	MEAN	1229	MAX	7820	MIN 182	AC-FT	892000
WTR YR 1981	TOTAL	212517	MEAN	582	MAX	3640	MIN 150	AC-FT	421500

09364500 ANIMAS RIVER AT FARMINGTON, NM

LOCATION.--Lat 36°43'17", long 108°12'05", in SW¼SW¼ sec.15, T.29 N., R.13 W., San Juan County, Hydrologic Unit 14080104, 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 in Farmington, and 1.5 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--1,360 mi^2 (3,520 km^2), approximately.

WATER-DISCHARGE RECORDS

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.

REVISED RECORDS.--WSP 1243: 1931. WSP 1313: 1913.

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). Oct. 5, 1938 to Nov. 1, 1973 at site 900 ft (274 m) downstream at datum 1.74 ft (0.53 m) lower.

REMARKS.--Water-discharge records good except those for winter period, which are fair. Diversions for irrigation of about 30,000 acres (120 km^2) above station.
AVERAGE DISCHARGE.--70 years, 912 ft^3/s (25.83 m^3/s), 660,700 acre-ft/yr (815 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 25,000 ft^3/s (710 m^3/s) June 29, 1927, gage height, 8.5 ft (2.59 m), site and datum then in use, from rating curve extended above 10,000 ft^3/s (283 m^3/s); minimum, 1.0 ft^3/s (0.028 m^3/s) Aug. 11, 1972.
EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood occurred Oct. 6, 1911, when a stage of about 16.5 ft (5.0 m) was reached (datum in use Oct. 1938 to Nov. 1973). Flood of Sept. 6, 1909, reached a stage of 11.1 ft (3.38 m), 1904-5 site and datum (discharge, about 19,000 ft^3/s or 540 m^3/s).
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,050 ft^3/s (115 m^3/s) at 1600 hours June 8, gage height, 7.27 ft (2.216 m), no other peak above base of 4,000 ft^3/s (110 m^3/s); minimum daily, 138 ft^3/s (3.91 m^3/s) Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	180	257	287	252	231	192	188	1170	1920	706	413	172
2	177	260	288	254	215	231	182	1460	1830	741	364	195
3	259	271	284	254	210	238	182	1380	2140	663	312	192
4	245	274	281	260	213	221	190	1820	2240	529	294	183
5	211	278	283	265	222	210	190	1330	1920	451	261	211
6	182	282	274	266	219	205	182	1110	2450	409	232	336
7	163	282	282	261	218	206	175	920	2990	352	195	308
8	164	283	281	237	214	206	177	782	3340	274	155	317
9	159	272	282	243	218	200	191	678	3400	257	138	290
10	164	288	257	235	218	197	180	536	3270	321	179	277
11	163	272	242	240	206	216	173	469	3000	402	169	286
12	171	268	262	239	210	226	188	419	2740	411	340	274
13	175	262	280	245	210	216	201	382	2360	979	437	282
14	180	260	275	238	214	222	205	342	1980	1250	343	333
15	221	278	277	232	214	236	212	313	1550	1430	289	379
16	291	278	270	237	209	227	243	347	1160	1430	256	375
17	303	272	269	234	212	218	245	410	1010	1240	244	355
18	284	277	270	242	206	210	272	399	1000	1030	259	324
19	276	276	271	237	206	203	412	366	946	869	220	298
20	258	270	269	231	204	202	457	367	884	702	191	276
21	258	278	269	241	205	204	423	416	924	535	169	246
22	266	277	263	240	201	204	376	419	907	426	159	215
23	261	281	262	240	195	201	411	393	830	379	157	209
24	255	298	256	246	187	200	467	396	707	415	176	208
25	256	318	258	241	188	202	578	443	558	460	169	247
26	255	301	247	238	196	200	694	522	569	467	157	245
27	265	302	251	229	196	202	796	780	531	660	148	224
28	275	294	258	240	192	205	807	1100	533	698	147	202
29	281	290	254	247	---	202	766	1730	499	569	154	196
30	270	295	262	244	---	195	947	1730	436	477	144	181
31	262	---	255	240	---	191	---	1830	---	412	143	---
TOTAL	7130	8394	8319	7548	5829	6488	10710	24759	48624	19944	7014	7836
MEAN	230	280	268	243	208	209	357	799	1621	643	226	261
MAX	303	318	288	266	231	238	947	1830	3400	1430	437	379
MIN	159	257	242	229	187	191	173	313	436	257	138	172
AC-FT	14140	16650	16500	14970	11560	12870	21240	49110	96450	39560	13910	15540

CAL YR 1980	TOTAL	426049	MEAN	1164	MAX	8010	MIN 159	AC-FT	845100
WTR YR 1981	TOTAL	162595	MEAN	445	MAX	3400	MIN 138	AC-FT	322500

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1940 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1941 to current year.
WATER TEMPERATURES: December 1950 to current year.
SUSPENDED SEDIMENT DISCHARGE: December 1950 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,980 micromhos Aug. 19, 1944; minimum daily, 146 micromhos July 11, 1975.
WATER TEMPERATURES: Maximum, 32.0°C Aug. 26, 1966 and July 16, 1977; minimum, 0.0°C on many days during winter months (each year).
SEDIMENT CONCENTRATIONS: Maximum daily, 36,800 mg/L July 23, 1954; minimum daily, 1 mg/L on several days during September 1956, September 1958, and September 1974.
SEDIMENT LOADS: Maximum daily, 337,000 tons (306,000 tonnes) July 23, 1954; minimum daily, less than .50 ton (.45 tonne) on many days during 1955-57, 1959, 1960, 1963, 1972, 1974, and 1978

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 935 micromhos Mar. 18; minimum daily, 230 micromhos June 10-11.
WATER TEMPERATURES: Maximum, 28.5°C June 29-30; minimum, 0.0°C on several days in January and February.
SEDIMENT CONCENTRATIONS: Maximum daily, 8,970 mg/L July 15; minimum daily, 5 mg/L Nov. 9.
SEDIMENT LOADS: Maximum daily, 35,100 tons (31,800 tonnes) July 15; minimum daily, 3.7 tons (3.6 tonnes) Nov. 9.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
JAN												
05...	1015	278	790	8.5	4.5	4.0	24	11.1	310	140	--	97
MAR												
04...	1000	216	740	8.5	9.0	5.5	10	--	--	--	--	--
MAY												
06...	1500	1040	320	8.2	25.5	17.0	34	8.8	140	--	59	45
JUN												
29...	1400	468	490	8.6	36.0	24.5	4.0	--	210	--	120	69
AUG												
27...	1015	149	770	7.8	29.0	20.5	5.0	9.8	290	--	170	93

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
JAN												
05...	16	39	1.0	3.0	170	200	24	.5	4.0	512	487	.15
MAR												
04...	--	--	--	--	160	240	27	.3	6.3	530	--	.26
MAY												
06...	6.1	8.8	.3	1.3	79	66	5.0	.2	5.9	193	187	.24
JUN												
29...	9.6	24	.7	2.4	94	130	15	.3	7.4	310	315	.01
AUG												
27...	14	41	1.1	3.0	120	230	18	.3	4.8	470	476	.03

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
JAN											
05...	.16	.090	.070	.84	1.1	.090	10	130	--	12	2.1
MAR											
04...	.28	.140	.160	.69	1.1	.020	--	--	--	5.4	1.3
MAY											
06...	.19	.130	.130	.62	.99	.120	--	--	4.7	--	--
JUN											
29...	.05	.040	.080	1.2	1.2	.050	80	20	--	2.2	.4
AUG											
27...	.01	.090	.100	.91	1.0	.040	20	31	--	1.9	.1

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)
JAN										
05...	1015	2	2	100	90	1	2	10	0	2
MAR										
04...	1000	3	--	200	--	1	--	10	--	2
JUN										
29...	1400	2	2	100	200	1	<1	0	10	1
AUG										
27...	1015	2	2	0	100	0	<1	10	0	0

DATE	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)
JAN										
05...	<3	16	2	1900	10	22	2	290	130	.4
MAR										
04...	--	10	--	1100	--	16	--	280	--	.1
JUN										
29...	<3	8	5	250	80	14	1	40	20	1.1
AUG										
27...	<3	9	4	560	20	3	4	70	31	.1

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
JAN									
05...	.1	2	2	1	1	0	0	130	20
MAR									
04...	--	0	--	1	--	0	--	120	--
JUN									
29...	.9	2	3	0	0	0	0	40	50
AUG									
27...	.4	5	4	0	0	0	0	40	20

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
JAN			
05...	1015	30	21
MAR			
04...	1000	33	63
MAY			
06...	1500	560	270
06...	1600	560	270
JUN			
29...	1400	240	600
AUG			
27...	1015	330	130

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 5,80		MAR 4,81		MAY 6,81		JUN 29,81		AUG 27,81	
TIME	1210		1000		1500		1400		1015	
TOTAL CELLS/ML	1300		11000		620		360		2000	
DIVERSITY: DIVISION	1.1		0.6		0.6		0.2		0.6	
.CLASS	1.1		0.6		0.6		0.2		0.6	
..ORDER	2.2		2.3		2.2		1.6		2.5	
...FAMILY	2.6		2.8		2.3		1.9		2.8	
....GENUS	2.7		3.0		2.6		1.9		3.1	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)										
.BACILLARIOPHYCEAE										
..ACHNANTHALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	260	2	--	-	--	-	31	2
....RHOICOSPHENIA	--	-	--	-	--	-	--	-	47	2
..BACILLARIALES										
...NITZSCHIACEAE										
....NITZSCHIA	180	14	1700#	15	190#	31	180#	50	760#	39
..EPITHEMIALES										
...EPITHEMIACEAE										
....EPITHEMIA	--	-	88	1	--	-	--	-	--	-
..EUPODISCALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	260	2	--	-	--	-	47	2
..FRAGILARIALES										
...FRAGILARIACEAE										
....DIATOMA	52	4	530	5	13	2	--	-	110	6
....FRAGILARIA	--	-	--	-	39	6	--	-	--	-
....SYNEDRA	52	4	1200	11	52	8	--	-	62	3
..NAVICULALES										
...CYMBELLACEAE										
....CYMBELLA	26	2	3000#	27	26	4	52	14	78	4
...GOMPHONEMACEAE										
....GOMPHONEMA	77	6	350	3	--	-	13	4	78	4
...NAVICULACEAE										
....NAVICULA	490#	38	1300	12	190#	31	13	4	360#	18
..SURIRELLALES										
...SURIRELLACEAE										
....SURIRELLA	--	-	610	6	39	6	90#	25	110	6
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	13	2	--	-	--	-
....OOCYSTIS	13	1	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	--	-	--	-	62	3
....SCENEDESMUS	--	-	--	-	--	-	--	-	62	3
....TETRASTRUM	--	-	--	-	--	-	--	-	62	3
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	13	1	--	-	--	-	13	4	62	3
..ZYGNEMATALES										
...DESMIDIACEAE										
....COSMARIUM	13	1	--	-	--	-	--	-	16	1
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	52	8	--	-	--	-
..NOSTOCALES										
...NOSTOCACEAE										
....ANABAENA	150	12	--	-	--	-	--	-	--	-
..OSCILLATORIALES										
...OSCILLATORIACEAE										
....OSCILLATORIA	230#	18	--	-	--	-	--	-	--	-
....PHORMIDIUM	--	-	1800#	16	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....TRACHELOMONAS	--	-	--	-	--	-	--	-	16	1

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

SAN JUAN RIVER BASIN
09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued
WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .008 MM (70339)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)
NOV									
04...	1200	261	9.0	18	13	--	--	--	--
DEC									
01...	1045	293	4.0	20	16	--	--	--	--
JAN									
05...	1015	278	4.0	72	54	--	--	--	--
MAR									
04...	1000	216	5.5	91	53	31	53	68	78
APR									
19...	1140	412	14.0	1080	1200	41	52	--	75
JUL									
11...	1220	402	23.0	2110	2290	47	64	--	92
15...	1638	1430	22.0	9370	36200	50	62	--	87

DATE	SED. SUSP. FALL DIAM. % FINER THAN .031 MM (70341)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)
NOV									
04...	--	--	--	--	96	100	--	--	--
DEC									
01...	--	--	--	--	79	88	99	100	--
JAN									
05...	--	--	--	--	85	90	97	100	--
MAR									
04...	84	--	--	--	89	93	97	99	100
APR									
19...	--	--	--	--	91	96	99	100	--
JUL									
11...	--	--	--	--	99	99	100	--	--
15...	--	97	99	100	--	--	--	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	813	693	799	695	736	670	914	369	319	---	646	821
2	831	737	768	709	747	743	904	363	327	590	642	823
3	773	753	761	711	777	758	901	339	317	567	674	805
4	840	775	795	714	760	803	910	304	291	569	711	812
5	855	769	779	727	747	814	876	329	319	582	717	802
6	843	777	769	738	766	809	881	366	299	612	742	934
7	889	812	760	721	766	792	834	402	272	653	802	882
8	856	826	752	698	791	776	837	434	243	620	834	624
9	877	836	752	718	802	755	903	467	235	654	833	673
10	864	878	759	788	807	794	902	499	230	629	856	640
11	901	854	781	740	790	826	874	535	230	642	897	644
12	877	874	---	742	803	798	861	555	238	622	862	648
13	896	888	782	779	787	861	834	569	256	457	768	641
14	604	844	762	753	770	840	775	546	282	454	692	666
15	825	890	753	785	773	888	757	614	314	521	724	642
16	842	870	766	758	793	871	712	608	373	386	760	612
17	862	909	764	756	796	895	749	593	406	368	764	616
18	858	888	774	762	790	935	703	569	422	395	754	722
19	819	835	778	787	810	888	749	597	422	422	721	670
20	828	---	777	815	775	902	650	608	444	446	718	623
21	825	869	773	792	782	916	584	586	428	502	741	635
22	838	---	781	815	796	822	595	567	435	540	772	655
23	865	837	785	820	818	784	600	---	433	584	800	677
24	868	802	778	810	818	830	568	601	462	600	818	677
25	851	804	795	814	824	849	---	587	522	552	808	756
26	870	659	796	792	827	917	479	563	523	575	821	755
27	878	676	804	836	872	922	442	506	530	603	872	732
28	844	700	809	845	860	898	422	458	563	537	710	754
29	844	708	811	826	---	890	423	350	554	525	780	728
30	841	704	803	850	---	896	404	332	545	564	797	815
31	850	---	793	842	---	857	---	348	---	606	805	---
MEAN	843	802	779	772	792	839	726	485	374	546	769	716

WTR YR 1981 MEAN 704 MAX 935 MIN 230

SAN JUAN RIVER BASIN
09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued
WATER-QUALITY RECORDS

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	13.0	4.0	2.0	1.0	10.5	6.5	18.0	13.0	---	25.5	19.0
2	21.0	13.0	2.0	2.5	.5	7.5	8.5	14.0	13.0	23.5	22.0	18.0
3	20.0	11.0	3.5	2.5	.0	6.0	8.5	14.0	14.0	25.0	26.0	20.0
4	17.0	11.0	3.0	5.0	3.0	4.0	6.0	15.5	11.0	23.0	27.0	20.0
5	18.0	12.0	4.0	2.5	.0	4.5	8.0	14.5	14.0	24.0	26.5	22.0
6	21.0	12.0	6.5	2.0	.5	6.5	7.5	16.5	18.0	21.0	27.5	19.5
7	23.0	13.0	7.0	1.0	1.0	6.0	15.0	15.5	16.0	22.0	27.0	16.5
8	23.0	11.5	3.0	1.0	1.0	7.0	17.5	15.0	18.0	21.5	24.5	23.0
9	23.0	11.5	2.0	1.0	3.0	5.0	10.0	15.0	13.5	21.5	27.0	18.5
10	23.0	11.5	.5	4.0	5.5	7.0	11.0	17.0	15.5	20.5	21.0	22.0
11	21.0	9.5	3.5	4.0	.5	6.5	16.0	17.5	14.5	23.0	20.0	21.0
12	21.0	13.5	.5	5.0	1.0	7.0	13.0	14.5	14.5	22.5	22.5	19.5
13	21.0	13.0	3.5	4.5	1.0	7.0	13.0	17.5	15.0	23.5	22.0	18.5
14	15.0	11.5	3.5	4.0	2.5	8.0	13.5	18.0	16.0	20.5	22.5	21.5
15	13.0	7.5	3.0	4.0	3.0	8.5	12.0	16.0	17.0	22.0	24.5	21.0
16	13.0	6.5	2.5	4.0	4.0	8.0	18.0	15.0	19.0	23.0	24.0	19.0
17	13.0	6.5	2.5	6.0	4.5	9.5	13.5	13.5	15.0	23.0	25.5	21.5
18	10.0	5.5	2.5	4.0	5.5	5.0	18.0	18.5	14.5	21.0	25.0	16.0
19	10.0	6.5	3.0	1.0	10.0	10.5	14.0	18.5	16.0	21.0	26.0	20.5
20	15.0	---	4.0	1.0	6.5	8.0	12.0	14.5	18.5	19.0	19.5	18.5
21	14.0	5.5	4.5	1.0	6.5	7.0	11.5	17.0	19.0	26.0	22.0	21.5
22	13.0	---	2.5	4.5	6.0	7.5	17.0	18.5	17.5	20.0	23.0	16.5
23	13.0	6.0	3.0	.0	3.5	14.0	11.5	---	18.0	24.0	22.0	18.0
24	13.0	6.0	2.5	2.0	4.5	8.5	12.5	15.5	23.0	20.0	19.5	21.5
25	14.0	6.0	2.5	1.0	4.5	6.5	---	16.5	26.5	24.0	26.0	21.0
26	10.0	5.0	3.0	3.5	5.5	8.0	15.0	15.0	20.5	24.5	25.5	20.0
27	9.0	3.0	2.5	.5	4.0	7.5	19.5	20.0	25.5	19.5	27.0	16.5
28	10.0	2.0	3.5	3.0	6.0	7.0	17.0	19.0	25.0	18.5	27.0	19.5
29	11.0	3.0	2.5	1.5	---	12.0	18.5	14.5	28.5	18.0	26.0	21.0
30	12.0	4.5	2.0	2.0	---	7.5	19.0	13.0	28.5	25.5	22.0	16.0
31	13.0	---	2.0	1.5	---	6.5	---	16.5	---	26.0	19.0	---
MEAN	16.0	8.5	3.0	2.5	3.5	7.5	13.0	16.0	18.0	22.0	24.0	19.5

WTR YR 1981 MEAN 13.0 MAX 28.5 MIN .0

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13	6.1	23	16	55	43	41	28	66	41	65	34
2	18	8.6	35	25	46	36	43	29	60	35	120	75
3	156	109	41	30	24	18	32	22	82	46	116	75
4	102	67	15	11	25	19	29	20	70	40	91	54
5	49	28	16	12	24	18	54	39	72	43	94	53
6	23	11	18	14	18	13	42	30	49	29	114	63
7	18	7.9	22	17	22	17	39	27	54	32	430	239
8	20	8.9	16	12	35	27	39	25	46	27	88	49
9	17	7.3	5	3.7	22	17	42	28	61	36	77	42
10	15	6.6	20	16	18	12	27	17	52	31	106	56
11	17	7.5	35	26	32	21	23	15	47	26	190	111
12	12	5.5	15	11	34	24	26	17	66	37	285	174
13	12	5.7	13	9.2	24	18	25	17	68	39	730	426
14	98	48	12	8.4	21	16	27	17	87	50	726	435
15	58	35	30	23	32	24	24	15	50	29	563	359
16	63	49	16	12	32	23	23	15	68	38	389	238
17	66	54	11	8.1	30	22	23	15	93	53	351	207
18	60	46	11	8.2	26	19	25	16	77	43	261	148
19	23	17	9	6.7	41	30	32	20	56	31	153	84
20	14	9.8	8	5.8	26	19	44	27	60	33	105	57
21	30	21	11	8.3	20	15	34	22	56	31	99	55
22	16	11	13	9.7	41	29	24	16	43	23	115	63
23	13	9.2	15	11	28	20	29	19	33	17	115	62
24	13	9.0	15	12	23	16	79	52	53	27	177	96
25	12	8.3	19	16	15	10	25	16	44	22	311	170
26	19	13	24	20	20	13	22	14	40	21	333	180
27	18	13	35	29	25	17	37	23	24	13	322	176
28	22	16	37	29	20	14	56	36	36	19	221	122
29	24	18	42	33	24	16	30	20	---	---	147	80
30	20	15	28	22	28	20	25	16	---	---	138	73
31	21	15	---	---	32	22	32	21	---	---	163	84
TOTAL	---	686.4	---	465.1	---	628	---	694	---	912	---	4140

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	228	116	786	2740	810	4200	959	2260	220	245	128	59
2	94	46	2250	8870	435	2150	900	1800	113	111	106	56
3	67	33	1030	3840	530	3060	270	483	55	46	110	57
4	155	80	1170	5750	660	3990	138	197	33	26	87	43
5	114	58	408	1470	450	2330	109	133	48	34	262	223
6	78	38	306	917	1610	10700	102	113	34	21	3150	2860
7	32	15	228	566	2000	16100	93	88	26	14	2730	2270
8	38	18	154	325	1710	15400	78	58	23	9.6	900	770
9	58	30	119	218	675	6200	60	42	25	9.3	410	321
10	52	25	103	149	630	5560	250	217	280	135	300	224
11	44	21	93	118	510	4130	1050	1140	170	78	280	216
12	65	33	60	68	405	3000	830	921	1450	1330	230	170
13	72	39	57	59	253	1610	4730	13900	1280	1510	270	206
14	106	58	47	43	222	1190	5060	17500	255	236	440	396
15	82	47	41	35	194	812	8970	35100	168	131	690	706
16	94	62	46	43	130	407	4050	15600	131	91	480	486
17	119	79	62	69	103	281	650	2180	124	82	500	479
18	123	90	41	44	69	186	500	1390	155	108	1730	1510
19	1150	1280	27	27	58	150	890	2090	72	43	239	192
20	1500	1850	39	39	53	127	295	559	115	59	142	106
21	250	286	40	45	53	133	240	347	54	25	98	65
22	123	125	30	34	53	130	190	219	53	23	100	58
23	163	181	23	24	37	83	160	164	53	22	59	33
24	210	265	27	29	19	36	259	290	82	39	47	26
25	365	570	33	39	15	23	294	365	49	22	100	67
26	430	806	44	62	12	18	198	250	46	19	168	111
27	467	1000	85	179	13	19	560	998	44	18	83	50
28	349	760	122	409	15	22	855	1610	42	17	48	26
29	260	538	475	2220	11	15	175	269	48	20	36	19
30	447	1140	602	2810	10	12	93	120	42	16	44	22
31	---	---	1450	7160	---	---	62	69	112	43	---	---
TOTAL	---	9689	---	38401	---	82074	---	100472	---	4582.9	---	11827

TOTAL LOAD FOR YEAR: 254571.4 TONS.

09365000 SAN JUAN RIVER AT FARMINGTON, NM

LOCATION.--Lat 36°43'22", long 108°13'30", in NW¼SE¼ sec.17, T.29 N., R.13 W., San Juan County, Hydrologic Unit 14080105, on left bank 360 ft (110 m) downstream from highway bridge on State Highway 371 in Farmington, 4,000 ft (1,200 m) downstream from Animas River, 2.3 mi (3.7 km) upstream from La Plata River, and at mile 251.4 (404.5 km).

DRAINAGE AREA.--7,240 mi^2 (18,750 km^2), approximately.

WATER-DISCHARGE RECORDS

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.

REVISED RECORDS.--WSP 1119: Drainage area. WSP 1243: 1938. WSP 1313: 1905, 1914. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 5,230.37 ft (1,594.217 m) National Geodetic Vertical Datum of 1929. See WSP 1313 or 1733 for history of changes prior to Nov. 19, 1933.

REMARKS.--Water-discharge records good. Since June 1962 flow is partly controlled by operation of Navajo Reservoir (station 09355100) 50 mi (80 km) upstream. Diversions above station for irrigation of about 86,000 acres (350 km^2), 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. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--69 years (water years 1913-81), 2,357 ft^3/s (66.75 m^3/s), 1,708,000 acre-ft/yr (2.11 km^3/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 68,000 ft^3/s (1,930 m^3/s) June 29, 1927, gage height, 10.2 ft (3.109 m), site and datum then in use, from rating curve extended above 37,000 ft^3/s (1,050 m^3/s); minimum, 14 ft^3/s (0.40 m^3/s) Aug. 22, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood occurred Oct. 6, 1911. Flood of Sept. 6, 1909, reached a stage of about 12.3 ft (3.8 m), site and datum in use May to September 1906.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,700 ft^3/s (133 m^3/s) July 1, gage height, 4.08 ft (1.244 m); minimum daily, 442 ft^3/s (12.5 m^3/s) Mar. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1190	1420	1820	1960	1420	758	514	1420	2330	3020	885	846
2	1220	1440	1820	1960	1380	932	465	1980	2260	2200	825	883
3	1350	1430	1820	1960	1370	980	488	1770	2580	1390	819	880
4	1260	1430	1820	1980	1380	909	498	2140	2750	1250	764	888
5	1240	1420	1830	1990	1390	831	508	1670	2460	1170	731	1160
6	929	1420	1590	2000	1370	781	505	1420	2990	1060	940	1490
7	680	1420	1190	1990	1370	786	479	1160	3510	1010	819	1300
8	1130	1430	780	1960	1370	786	479	994	3830	929	764	1620
9	1210	1440	696	1970	1410	801	495	947	3880	974	896	1360
10	1210	1450	654	1960	1410	797	459	773	3620	1260	962	1100
11	1210	1430	633	1960	1380	857	443	688	3200	1280	896	1220
12	888	1450	629	1970	1380	873	448	636	2820	1390	1080	1150
13	994	1450	744	2010	1380	842	485	600	2410	1890	1240	1140
14	1220	1470	1050	1990	1390	890	488	532	2030	1910	1130	1250
15	1350	1590	1560	1980	1380	922	523	555	1800	2050	1040	1320
16	1430	1630	1630	1990	1380	900	547	686	1500	2090	962	1300
17	1460	1640	1660	1980	1380	865	534	839	1310	1780	929	1290
18	1600	1660	1670	1990	1360	841	569	771	1270	1500	1010	1310
19	1460	1670	1690	1990	1060	794	773	716	1240	1330	885	1190
20	1460	1660	1890	1990	1050	803	791	707	1120	1030	885	1150
21	1410	1690	1910	1960	1050	858	780	766	1160	989	830	1080
22	1430	1700	1930	1840	1050	813	716	779	1160	897	821	1020
23	1420	1730	1940	1450	1040	825	702	740	1080	823	816	997
24	1450	1770	1940	1380	1030	822	734	722	952	841	817	1030
25	1380	1800	1950	1380	1030	858	760	718	759	895	909	1060
26	1420	1780	1930	1380	1040	442	875	743	748	1010	832	1070
27	1470	1800	1940	1360	858	530	1030	905	824	1430	850	1040
28	1470	1780	1960	1380	787	580	1010	1240	856	1130	914	1000
29	1500	1790	1960	1400	---	548	985	1940	880	997	814	982
30	1450	1810	1960	1400	---	532	1080	2070	909	926	817	958
31	1430	---	1960	1400	---	543	---	2200	---	864	809	---
TOTAL	40321	47600	48556	55910	34895	24299	19163	33827	58238	41315	27691	34084
MEAN	1301	1587	1566	1804	1246	784	639	1091	1941	1333	893	1136
MAX	1600	1810	1960	2010	1420	980	1080	2200	3880	3020	1240	1620
MIN	680	1420	629	1360	787	442	443	532	748	823	731	846
AC-FT	79980	94410	96310	110900	69210	48200	38010	67100	115500	81950	54930	67610

CAL YR 1980	TOTAL	930488	MEAN	2542	MAX	9310	MIN 629	AC-FT	1846000		
WTR YR 1981	TOTAL	465899	MEAN	1276	MAX	3880	MIN 442	AC-FT	924100		

09365000 SAN JUAN RIVER AT FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1962 to current year.
WATER TEMPERATURES: June 1962 to current year.

REMARKS.--Daily chemical samples are collected by transversing the stream cross section.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,290 micromhos Aug. 8, 1970; minimum daily, 154 micromhos May 13, 1962.
WATER TEMPERATURES: Maximum, 33.0°C July 6, 1967; minimum, 0.0°C on several days during December and January of most years.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 990 micromhos Sept. 8; minimum daily, 252 micromhos June 9-10.
WATER TEMPERATURES: Maximum, 25.5°C June 25-26; minimum, 1.0°C Feb. 11.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
NOV												
06...	1200	1480	407	8.8	18.5	8.0	11.6	--	140	48	--	43
DEC												
02...	1545	1800	370	8.5	11.5	16.5	11.4	20	120	36	--	37
JAN												
06...	0815	2060	380	8.2	-2.5	4.0	11.1	23	140	40	--	42
FEB												
03...	1500	1390	440	8.3	8.0	5.0	14.6	1	150	61	--	48
MAR												
04...	1145	890	540	8.2	11.0	7.0	--	41	190	86	--	58
APR												
08...	1130	479	520	8.1	22.0	12.0	12.8	23	170	--	75	52
MAY												
05...	0930	1800	350	7.7	22.0	13.0	--	23	140	--	59	44
29...	1100	1940	350	8.1	24.0	16.0	8.7	19	130	--	57	44
JUN												
26...	1415	809	470	8.4	36.5	25.5	8.5	19	160	--	73	53
AUG												
03...	1115	836	460	7.7	31.5	20.0	--	42	160	--	60	51
27...	1500	785	386	8.0	31.0	19.5	10.0	52	130	--	42	41

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
NOV												
06...	8.0	27	1.0	2.1	92	--	95	6.9	.2	8.5	246	.15
DEC												
02...	7.5	22	.9	1.9	--	87	85	5.7	.2	9.3	222	.13
JAN												
06...	7.3	20	.8	1.9	--	--	86	5.6	.3	10	231	.14
FEB												
03...	8.2	39	1.4	2.1	--	--	120	8.2	.2	9.9	292	.12
MAR												
04...	9.8	42	1.3	2.3	--	99	160	11	.3	9.0	352	.09
APR												
08...	8.8	41	1.4	2.0	--	91	150	8.5	.2	7.6	325	.01
MAY												
05...	6.3	19	.7	2.1	--	77	81	5.2	.2	6.6	212	.21
29...	6.0	17	.6	3.3	--	78	81	8.1	.4	6.3	214	.15
JUN												
26...	7.7	28	1.0	2.1	--	91	130	11	.2	7.4	295	.01
AUG												
03...	7.9	28	1.0	2.5	--	100	100	8.3	.2	10	269	.15
27...	6.8	26	1.0	2.0	--	88	88	6.7	.2	9.8	234	.07

09365000 SAN JUAN RIVER AT FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
NOV												
06...	.00	.220	--	.27	.64	.220	.070	50	30	10	6.8	.2
DEC												
02...	.16	.060	--	.77	.96	.120	.030	40	20	--	6.7	.5
JAN												
06...	.14	.130	--	1.1	1.3	.070	.020	20	70	--	7.0	.4
FEB												
03...	.10	.220	--	3.9	4.2	.060	.050	20	60	--	5.2	--
MAR												
04...	.11	.250	--	.64	.98	.160	.030	20	20	--	5.6	.7
APR												
08...	.01	.340	--	1.1	1.4	.120	.020	30	20	--	5.5	.4
MAY												
05...	.19	.240	--	.96	1.4	.260	.080	10	80	30	3.4	1.9
29...	.15	.220	--	.98	1.4	.200	.090	20	40	--	3.4	1.7
JUN												
26...	.04	.230	.280	1.1	1.3	.150	.060	240	20	--	3.1	.4
AUG												
03...	.17	.340	--	1.1	1.6	.350	.090	30	21	--	2.5	.6
27...	.03	.270	--	1.0	1.4	.170	.110	20	17	--	2.6	.1

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)
NOV										
06...	1200	2	1	200	70	50	1	<1	0	0
MAY										
05...	0930	3	2	200	70	10	2	2	20	10

DATE	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)
NOV									
06...	2	<3	25	5	2700	30	11	1	140
MAY									
05...	3	<3	48	9	6600	80	71	1	580

DATE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV									
06...	10	.0	.0	1	1	0	0	30	10
MAY									
05...	30	.2	.3	0	0	1	0	310	40

09365000 SAN JUAN RIVER AT FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV									
06...	10	.0	.0	1	1	0	0	30	10
MAY									
05...	30	.2	.3	0	0	1	0	310	40

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
APR									
08...	1130	<6.9	<.4	<3.4	<.4	<3.3	<.4	.05	1.1

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV					
06...	1200	1480	8.0	1450	4
DEC					
02...	1545	1800	16.5	327	--
JAN					
06...	0815	2060	4.0	261	17
FEB					
03...	1500	1390	5.0	76	35
MAR					
04...	1145	890	7.0	84	80
APR					
08...	1130	479	12.0	36	63
MAY					
05...	0930	1800	13.0	410	52
29...	1100	1940	16.0	224	62
JUN					
26...	1415	809	25.5	50	74
AUG					
03...	1115	836	20.0	1140	43
27...	1500	785	19.5	1240	21

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	380	341	370	357	389	451	536	350	318	---	522	392
2	417	398	359	353	366	532	544	386	336	570	442	390
3	451	370	352	359	384	547	538	307	339	426	403	382
4	344	376	355	357	396	553	550	315	435	385	414	385
5	396	---	357	360	401	501	536	329	346	359	410	444
6	427	387	376	365	321	467	527	379	309	358	385	641
7	359	370	448	352	382	457	503	423	276	352	349	526
8	357	348	506	347	380	442	506	433	267	429	358	990
9	358	364	542	342	380	433	504	450	252	338	397	521
10	422	387	520	348	402	444	512	492	252	365	427	421
11	364	382	495	287	373	477	511	508	256	402	643	497
12	337	382	518	340	393	592	551	461	261	584	495	398
13	414	393	484	347	373	602	523	464	276	419	465	404
14	429	393	403	334	376	470	538	475	304	442	404	428
15	387	398	375	364	329	644	584	540	312	480	419	429
16	449	383	381	298	364	475	530	507	378	391	357	358
17	356	380	374	353	394	474	554	592	398	370	362	401
18	450	375	390	346	388	474	554	522	403	372	391	490
19	355	355	395	342	417	432	760	505	405	384	389	372
20	387	---	355	351	434	431	623	493	427	389	374	381
21	384	359	362	358	423	433	529	477	819	400	367	384
22	355	---	357	347	410	432	505	473	411	404	363	363
23	405	391	362	380	414	422	527	---	418	400	356	349
24	374	368	361	399	409	439	510	493	445	399	369	381
25	341	344	354	391	404	422	---	479	458	420	668	391
26	403	348	359	386	413	503	497	474	471	408	371	382
27	449	357	354	390	464	624	463	448	445	944	360	373
28	355	358	350	398	430	493	432	433	435	411	382	365
29	344	351	355	365	---	564	449	363	493	407	374	375
30	363	354	355	392	---	542	456	350	443	409	365	359
31	393	---	353	372	---	512	---	355	---	410	356	---
MEAN	387	371	396	357	393	493	529	443	380	428	411	432

WTR YR 1981 MEAN 418 MAX 990 MIN 252

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	10.0	---	4.5	2.0	8.0	6.5	18.5	14.5	---	24.0	13.0
2	16.0	10.0	16.5	5.0	2.0	7.0	8.5	14.5	14.0	23.5	19.5	13.5
3	15.0	10.0	---	4.5	2.0	6.0	8.0	17.0	15.0	25.0	23.5	14.5
4	15.0	11.0	---	6.0	2.5	4.0	5.5	15.5	12.0	23.0	18.0	14.5
5	16.0	11.0	---	5.0	2.5	4.0	7.5	15.5	15.0	19.5	22.5	17.0
6	17.0	11.0	---	4.0	2.5	6.0	8.0	16.0	19.0	17.0	22.0	17.5
7	16.0	10.0	---	4.0	3.0	5.5	14.0	16.5	16.5	18.0	22.0	14.5
8	16.0	10.0	---	4.0	3.0	6.0	15.0	16.0	18.5	17.5	18.0	20.0
9	16.0	11.0	---	4.0	4.0	5.0	11.0	16.0	13.5	17.0	21.5	15.5
10	16.0	10.5	---	6.0	4.0	6.0	12.5	18.5	14.5	15.5	16.0	18.0
11	16.0	10.0	---	6.0	1.0	6.0	14.5	18.0	14.5	19.5	16.0	17.0
12	16.0	11.0	---	6.0	3.0	7.0	13.5	15.5	14.5	20.0	18.0	15.0
13	15.0	11.5	---	6.5	3.5	7.5	12.0	18.0	15.0	22.0	19.0	15.0
14	12.0	9.5	---	6.0	4.0	7.5	13.0	18.0	18.0	20.0	20.0	17.5
15	10.0	7.5	---	6.0	4.5	7.5	11.0	16.0	12.0	21.5	21.0	18.0
16	10.0	6.5	---	6.0	4.5	7.5	18.0	15.0	19.5	22.0	20.5	16.0
17	10.0	6.5	---	6.0	5.0	8.5	13.5	13.0	16.0	23.0	21.0	18.5
18	12.0	6.5	---	5.0	5.0	4.0	18.5	18.0	15.5	20.5	16.0	13.0
19	10.0	6.0	---	4.0	8.0	9.0	14.0	18.5	16.0	20.0	20.5	17.0
20	13.0	6.0	---	3.5	6.0	7.0	12.5	14.5	19.0	18.0	15.0	15.0
21	12.0	6.0	---	3.5	4.0	5.0	12.0	17.0	20.0	18.0	17.0	17.0
22	10.0	---	---	3.5	4.5	6.0	13.0	18.0	17.5	19.0	17.0	17.0
23	10.0	7.0	---	3.0	3.5	6.5	12.0	---	18.5	19.0	17.5	13.0
24	9.0	7.0	---	4.0	4.5	8.0	13.5	17.0	24.0	18.0	14.5	16.5
25	9.0	7.5	---	3.0	4.5	6.0	---	17.5	25.5	22.0	23.0	16.5
26	8.0	6.5	---	2.0	5.0	7.5	---	16.0	21.0	22.5	19.0	16.0
27	7.0	5.0	---	2.5	3.5	7.5	---	21.0	24.0	23.0	20.0	13.0
28	8.0	5.0	---	4.5	5.5	7.0	19.0	17.0	24.0	24.0	20.0	15.5
29	9.0	5.5	---	3.5	---	9.0	20.0	16.0	24.5	23.5	19.5	16.0
30	10.0	7.0	---	3.5	---	7.5	20.0	13.5	24.0	23.0	16.0	11.0
31	10.0	---	---	3.0	---	6.5	---	18.0	---	24.0	15.0	---
MEAN	12.5	8.5	16.5	4.5	4.0	6.5	13.0	16.5	18.0	20.5	19.0	15.5

WTR YR 1981 MEAN 12.5 MAX 25.5 MIN 1.0

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, Hydrologic Unit 14080105, on right bank at Colorado-New Mexico State Line, 0.2 mi (0.3 km) downstream from Ponds Arroyo, and 4.8 mi (7.7 km) north of La Plata, NM.

DRAINAGE AREA.--331 mi^2 (857 km^2).

PERIOD OF RECORD.--January 1920 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1934(M), 1936(M).

GAGE.--Water-stage recorder. Datum of gage is 5,975.15 ft (1,821.226 m) National Geodetic Vertical Datum of 1929. See WSP 1713 or 1733 for history of changes prior to Mar. 17, 1934.

REMARKS.--Records good. Diversions above station for irrigation of about 15,000 acres (61 km^2), mostly above station.

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

AVERAGE DISCHARGE.--61 years, 34.6 ft^3/s (0.980 m^3/s), 25,070 acre-ft/yr (30.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,750 ft^3/s (135 m^3/s) Aug. 24, 1927, gage height, 11.36 ft (3.463 m), present datum, from rating curve extended above 750 ft^3/s (21 m^3/s) on basis of slope-area measurement of peak flow; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,300 ft^3/s (93.5 m^3/s) July 13, gage height, 8.98 ft (2.737 m); minimum daily, 1.2 ft^3/s (0.034 m^3/s) Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	12	12	16	12	10	5.1	70	54	23	6.0	3.2
2	5.8	12	12	16	10	9.5	4.1	82	51	30	3.5	2.6
3	5.4	11	12	16	11	9.5	4.1	96	64	14	2.9	2.6
4	5.4	11	12	16	12	9.0	5.4	99	66	7.5	2.6	2.9
5	5.8	11	12	16	12	9.0	6.2	83	32	5.8	2.4	3.8
6	5.4	10	13	14	12	8.5	4.8	83	36	4.8	1.8	4.1
7	5.8	11	14	14	12	8.5	4.4	59	59	4.8	1.2	3.8
8	5.8	11	14	14	11	7.0	4.1	47	67	37	1.6	3.2
9	5.8	11	14	14	13	6.6	5.4	30	74	18	2.9	2.9
10	5.8	12	14	14	12	6.6	9.0	21	72	17	2.9	2.9
11	6.2	12	15	13	11	8.5	12	18	69	18	23	2.9
12	6.2	10	15	13	11	8.5	12	23	69	39	26	2.6
13	6.2	11	15	13	12	8.0	8.5	31	55	585	6.2	3.2
14	8.5	11	15	12	12	9.0	8.5	26	43	47	4.1	3.5
15	13	11	15	10	12	9.5	15	27	34	52	3.8	3.2
16	13	9.0	15	12	12	9.0	15	30	29	75	3.5	2.9
17	12	9.0	15	13	12	8.5	16	35	24	23	3.8	3.2
18	11	9.0	15	13	12	8.0	25	28	19	16	5.1	2.9
19	11	9.0	15	13	12	8.0	52	20	16	14	4.4	2.6
20	11	9.0	16	13	12	8.0	33	17	12	13	4.8	2.6
21	11	9.0	16	13	10	8.5	22	18	14	12	4.1	2.4
22	11	9.0	16	13	10	8.0	20	19	18	10	4.4	2.4
23	12	10	16	13	9.5	8.0	27	21	17	9.5	4.4	2.4
24	12	10	15	13	9.5	7.5	43	26	16	9.0	3.8	2.4
25	12	10	15	12	9.0	7.0	66	27	18	8.5	3.8	2.6
26	13	10	15	11	9.5	5.4	62	29	17	8.0	3.5	2.9
27	13	11	15	12	10	4.8	54	34	16	8.0	3.2	2.4
28	13	12	15	14	10	5.4	45	52	16	7.0	2.6	2.1
29	13	12	15	13	---	5.4	70	55	14	6.0	2.4	2.1
30	13	12	15	13	---	5.1	73	58	11	5.0	2.6	2.1
31	13	---	15	13	---	5.4	---	61	---	8.0	3.5	---
TOTAL	290.9	317.0	448	415	312.5	239.7	731.6	1325	1102	1134.9	150.8	85.4
MEAN	9.38	10.6	14.5	13.4	11.2	7.73	24.4	42.7	36.7	36.6	4.86	2.85
MAX	13	12	16	16	13	10	73	99	74	585	26	4.1
MIN	5.4	9.0	12	10	9.0	4.8	4.1	17	11	4.8	1.2	2.1
AC-FT	577	629	889	823	620	475	1450	2630	2190	2250	299	169

CAL YR 1980 TOTAL 35166.3 MEAN 96.1 MAX 1080 MIN 3.2 AC-FT 69750
WTR YR 1981 TOTAL 6552.8 MEAN 18.0 MAX 585 MIN 1.2 AC-FT 13000

09367400 LA PLATA RIVER TRIBUTARY NEAR FARMINGTON, NM

LOCATION.--Lat 36°47'10", long 108°13'31", in sec.29, T.30 N., R.13 W., San Juan County, Hydrologic Unit 14080104, on left bank 700 ft (213 m) upstream from culvert on State Highway 17, 3.6 mi (5.8 km) north of U.S. Highway 550, 4.1 mi (6.6 km) northwest of Farmington, and 10.0 mi (16.1 km) south of La Plata.

DRAINAGE AREA.--1.03 mi^2 (2.67 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Water years 1970-78 (annual maximum only), May 1979 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,376 ft (1,638.6 m) from topographic map.

REMARKS.--Water-discharge records fair. Recording rain gage at station.

EXTREMES FOR PERIOD OF RECORDS.--Maximum discharge, 245 ft^3/s (6.94 m^3/s) Mar. 1973, gage-height, 4.25 ft (1.295 m); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10 ft^3/s (0.28 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 18	1600	*147	4.16	3.69	1.125	July 26	1035	107	3.03	3.39	1.033
June 3	1240	35	0.99	2.42	0.738	Aug. 10	1730	50	1.42	2.68	0.817
July 11	2200	32	0.91	2.34	0.713	Aug. 27	1810	32	0.91	2.35	0.716

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.78	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	1.9	.00
11	.00	.00	.00	.00	.00	.03	.00	.00	.00	.75	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.16	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	4.8	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.16	.00	.00	.00	2.0	.00	.00
27	1.4	.00	.00	.00	.00	.00	.00	.07	.00	.00	.70	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.19	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	1.40	.00	.00	.00	.00	.35	4.80	.07	.97	2.80	2.60	.06
MEAN	.045	.000	.000	.000	.000	.011	.16	.002	.032	.090	.084	.002
MAX	1.4	.00	.00	.00	.00	.16	4.8	.07	.78	2.0	1.9	.06
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	2.8	.00	.00	.00	.00	.7	9.5	.1	1.9	5.6	5.2	.1
(††)	0.11	0.00	0.00	0.00	0.16	0.68	2.42	0.21	1.20	1.60	0.89	3.17

CAL YR 1980 TOTAL 25.78 MEAN .070 MAX 2.5 MIN .00 AC-FT 51
WTR YR 1981 TOTAL 13.05 MEAN .036 MAX 4.8 MIN .00 AC-FT 26

(††) RAINFALL, IN INCHES

09367400 LA PLATA RIVER TRIBUTARY NEAR FARMINGTON, NM--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1980 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)
APR											
18...	1300	E17	2550	8.1	--	--	--	--	--	--	--
18...	1315	E17	950	7.3	--	--	--	--	--	--	--
18...	1645	26	1300	7.5	12.0	11.0	230	81	7.9	180	5.1
JUN											
03...	1330	E17	600	6.6	--	15.5	--	--	--	--	--
03...	1445	.37	2200	7.6	--	15.5	960	320	37	230	3.2
JUL											
11...	2150	17	1000	7.3	--	--	--	--	--	--	--
AUG											
12...	0100	E17	1050	6.8	--	--	--	--	--	--	--
SEP											
04...	1000	E17	590	6.7	--	--	--	--	--	--	--

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
APR											
18...	--	170	--	139	--	--	--	--	--	--	--
18...	--	4	--	3	--	--	--	--	--	--	--
18...	6.8	--	--	--	560	4.5	.5	4.4	886	--	.98
JUN											
03...	--	170	--	139	--	--	--	--	--	--	--
03...	2.4	--	--	--	1200	8.6	.3	4.0	1940	.79	.86
JUL											
11...	--	140	--	115	--	--	--	--	--	--	--
AUG											
12...	--	200	0	164	--	--	--	--	--	--	--
SEP											
04...	--	140	0	115	--	--	--	--	--	--	--

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
APR										
18...	--	--	--	--	--	160	420	--	--	40.00
18...	--	--	--	--	--	5100	13000	--	--	40.00
18...	1.40	19	--	14.0	200	20	20	5.2	56	--
JUN										
03...	--	--	--	--	--	180	720	--	--	40.00
03...	.230	7.5	8.5	3.20	360	50	450	6.3	380	40.00
JUL										
11...	--	--	--	--	--	50	30	--	--	40.00
AUG										
12...	--	--	--	--	--	--	--	--	--	40.00
SEP										
04...	--	--	--	--	--	--	--	--	--	40.00

09367400 LA PLATA RIVER TRIBUTARY NEAR FARMINGTON, NM--Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
APR											
18...	1300	--	--	--	--	--	--	--	--	--	--
18...	1315	--	--	--	--	--	--	--	--	--	--
18...	1645	120	--	--	--	60	--	200	2	--	260
JUN											
03...	1330	--	--	--	--	--	--	--	--	--	--
03...	1445	100	2	2700	100	50	0	360	5	1	280
JUL											
11...	2150	--	--	--	--	--	--	--	--	--	--
AUG											
12...	0100	--	--	--	--	--	--	--	--	--	--
SEP											
04...	1000	--	--	--	--	--	--	--	--	--	--

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
APR											
18...	--	--	--	670000	160	--	--	--	--	49000	420
18...	--	--	--	580000	5100	--	--	--	--	22000	13000
18...	--	1400	--	600000	20	780	--	--	--	25000	20
JUN											
03...	--	--	--	600000	180	--	--	--	--	19000	720
03...	10	1600	2	600000	50	830	3	450	20	24000	450
JUL											
11...	--	--	--	710000	50	--	--	--	--	27000	30
AUG											
12...	--	--	--	710000	--	--	--	--	--	25000	--
SEP											
04...	--	--	--	700000	--	--	--	--	--	19000	--

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
APR											
18...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
18...	2.0	--	630	--	15	--	--	--	3100	--	--
JUN											
03...	--	--	--	--	--	--	--	--	--	--	--
03...	3.0	.1	570	6	4	7	7100	3500	3000	50	--
JUL											
11...	--	--	--	--	--	--	--	--	--	--	40.00
AUG											
12...	--	--	--	--	--	--	--	--	--	--	--
SEP											
04...	--	--	--	--	--	--	--	--	--	--	--

SAN JUAN RIVER BASIN

09367400 LA PLATA RIVER TRIBUTARY NEAR FARMINGTON, NM--Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)
APR							
18...	1330	E17	--	364000	--	--	--
18...	1331	E17	--	134000	--	--	--
18...	1400	E100	--	383000	--	--	--
18...	1401	E100	--	155000	--	--	--
18...	1645	26	11.0	113000	--	--	--
JUN							
03...	1440	17	15.5	76600	--	--	--
03...	1441	17	15.5	134000	--	--	--
JUL							
11...	2150	17	--	180000	--	--	--
AUG							
27...	1500	.70	33.0	74	--	--	--
SEP							
04...	1000	E17	--	115000	26	30	38

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
APR						
18...	--	--	--	--	49	40.00
18...	--	--	--	--	76	40.00
18...	--	--	--	--	49	40.00
18...	--	--	--	--	64	40.00
18...	--	--	--	--	63	--
JUN						
03...	--	--	--	--	--	40.00
03...	--	--	--	--	60	40.00
JUL						
11...	--	--	--	--	53	40.00
AUG						
27...	--	--	--	--	93	--
SEP						
04...	67	88	99	100	--	40.00

09367500 LA PLATA RIVER NEAR FARMINGTON, NM

LOCATION.--Lat 36°44'23", long 108°14'51", in NE¼SW¼ sec.7, T.29 N., R.13 W., San Juan County, Hydrologic Unit 14080105, on right bank 1,300 ft (400 m) upstream from bridge on U.S. Highway 550 in Farmington, and 1,800 ft (550 m) upstream from mouth.

DRAINAGE AREA.--583 mi^2 (1,510 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1938 to current year.

REVISED RECORDS.--WSP 1243: 1944-45. WSP 1313: 1943-44(M), 1946-50(M). WSP 1733: 1951(M).

GAGE.--Water-stage recorder. Altitude of gage is 5,214 ft (1,589 m), from river-profile map. Prior to July 28, 1978 at altitude 1.0 ft (0.305 m) higher.

REMARKS.--Water-discharge records good except those below 10 cfs (0.3 m^3/s), which are poor. Diversions for irrigation of about 24,000 acres (97 km^2) above station.

AVERAGE DISCHARGE.--43 years, 26.5 ft^3/s (0.750 m^3/s), 19,200 acre-ft/yr (23.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, that of Sept. 10, 1939, "discharge not determined", gage height, 6.03 ft (1.838 m), site and datum then in use; no flow for long periods in some years. Major floods occurred Sept. 5 or 6, 1909, and Oct. 5 or 6, 1911.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,740 ft^3/s (77.6 m^3/s) July 13, gage height, 6.93 ft (2.112 m); minimum daily, 0.18 ft^3/s (0.005 m^3/s) June 28-30, July 6-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.51	12	21	12	13	1.7	1.5	1.7	1.2	.77	.98	.31
2	.51	12	21	12	13	1.7	1.5	1.7	1.2	.85	.70	.31
3	.51	12	21	12	13	1.6	1.5	1.9	15	.51	.50	.31
4	.51	12	21	12	13	1.5	1.4	3.5	7.9	.30	.42	3.9
5	.51	9.9	21	11	13	1.5	1.4	3.3	4.9	.22	.35	12
6	.51	9.9	21	11	13	1.4	1.4	1.9	2.1	.18	.30	50
7	.51	8.2	21	11	12	1.4	1.3	1.8	1.3	.18	.30	11
8	.61	8.2	21	11	12	1.4	1.3	1.7	3.8	.18	.30	5.0
9	.61	8.2	21	11	12	1.4	1.3	1.8	2.1	1.0	.30	4.0
10	.61	9.9	20	11	11	1.4	1.4	1.9	1.7	.65	.30	3.0
11	.61	9.9	20	11	11	1.6	1.4	1.8	2.4	.57	.30	1.0
12	.61	8.2	19	11	11	1.5	1.5	1.8	2.2	9.4	288	.50
13	.77	9.9	19	11	10	1.5	1.6	1.8	1.7	490	17	.50
14	.95	9.9	19	11	10	1.8	1.5	1.8	1.3	60	11	11
15	1.2	12	18	11	9.2	1.5	1.6	1.7	1.3	18	9.2	13
16	1.1	12	17	11	8.3	1.5	1.6	1.7	1.1	33	8.5	4.0
17	1.1	15	17	11	7.1	1.5	1.5	1.7	1.1	13	8.0	2.0
18	.95	18	17	12	6.1	1.5	65	1.6	.89	7.5	8.2	.90
19	.95	18	16	12	5.7	1.5	7.2	1.5	.71	4.2	7.0	.75
20	.95	21	15	12	5.1	1.5	3.0	1.5	.67	2.0	5.2	.40
21	.95	22	15	12	4.7	1.5	2.6	1.4	.58	1.6	3.0	.30
22	.95	21	15	12	3.7	1.4	2.2	1.4	.47	1.6	1.0	.25
23	.95	23	15	12	3.7	1.4	1.8	1.4	.41	1.5	.50	.20
24	.95	18	14	12	3.2	1.4	1.9	1.3	.32	1.4	.40	.25
25	3.4	18	14	12	2.1	1.4	2.1	1.4	.28	1.4	.31	.25
26	4.8	18	14	12	1.9	1.4	1.9	1.5	.23	15	.31	.20
27	8.2	18	14	12	1.8	1.4	1.7	1.4	.21	10	1.9	.25
28	8.2	21	14	13	1.8	1.6	1.7	1.4	.18	6.8	.31	.25
29	8.2	21	13	13	---	1.4	1.7	1.3	.18	4.8	.31	.25
30	8.2	21	13	13	---	1.5	1.7	1.4	.18	3.2	.31	.25
31	9.9	---	13	13	---	1.5	---	1.4	---	1.7	.31	---
TOTAL	69.29	437.2	540	363	231.4	46.3	119.2	53.4	57.61	691.51	375.51	126.33
MEAN	2.24	14.6	17.4	11.7	8.26	1.49	3.97	1.72	1.92	22.3	12.1	4.21
MAX	9.9	23	21	13	13	1.8	65	3.5	15	490	288	50
MIN	.51	8.2	13	11	1.8	1.4	1.3	1.3	.18	.18	.30	.20
AC-FT	137	867	1070	720	459	92	236	106	114	1370	745	251

CAL YR 1980	TOTAL	34138.15	MEAN	93.3	MAX	1110	MIN	.05	AC-FT	67710
WTR YR 1981	TOTAL	3110.75	MEAN	8.52	MAX	490	MIN	.18	AC-FT	6170

09367500 LA PLATA RIVER NEAR FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-1973, 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
JAN											
06...	1325	11	2400	8.5	6.5	3.5	13.0	--	1100	240	110
FEB											
05...	0930	13	1900	8.6	7.0	.0	12.5	--	1000	210	120
MAR											
05...	1600	1.4	4050	8.4	16.0	13.0	8.9	--	1500	360	140
APR											
07...	1030	1.4	4600	8.3	21.0	13.5	8.9	--	1600	390	140
MAY											
05...	1345	2.8	2200	8.2	26.0	21.0	8.6	140	920	220	90
29...	0930	1.3	3980	8.2	23.0	16.0	8.4	--	1300	320	130
JUN											
29...	1030	.18	1450	8.2	29.0	24.5	--	--	370	100	28
AUG											
03...	1500	.50	2900	8.0	38.0	33.0	--	--	1100	290	99
28...	1500	.31	2000	7.8	33.5	33.0	8.1	--	510	150	32

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
JAN										
06...	210	2.8	2.7	1100	71	.5	10	1950	--	--
FEB										
05...	160	2.2	2.6	900	62	.3	14	1830	--	.98
MAR										
05...	510	5.8	4.1	2500	170	.4	6.8	3680	--	--
APR										
07...	540	6.0	4.2	2200	210	.4	8.4	3920	--	--
MAY										
05...	250	3.6	4.4	530	70	.5	9.6	2030	.08	.03
29...	460	5.5	.8	1800	140	.5	6.5	3380	--	--
JUN										
29...	180	4.1	3.0	350	91	.7	10	887	--	--
AUG										
03...	430	5.6	6.3	580	150	.6	12	2650	--	.10
28...	290	5.6	7.9	900	76	.6	12	1590	--	--

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
JAN										
06...	--	--	--	--	90	50	480	--	--	--
FEB										
05...	.010	.67	--	.040	90	90	340	5.9	.1	--
MAR										
05...	--	--	--	--	140	40	650	--	--	--
APR										
07...	--	--	--	--	160	60	330	--	--	--
MAY										
05...	.080	.89	1.0	.060	120	10	120	5.3	.4	--
29...	--	--	--	--	190	50	210	--	--	29.00
JUN										
29...	--	--	--	--	300	60	190	--	--	29.00
AUG										
03...	.160	.64	--	.030	180	60	420	6.1	<.1	--
28...	--	--	--	--	120	40	380	--	--	--

09367500 LA PLATA RIVER NEAR FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
JAN											
06...	1325	--	--	--	--	--	--	90	--	--	--
FEB											
05...	0930	--	--	--	--	--	--	90	--	--	--
MAR											
05...	1600	--	--	--	--	--	--	140	--	--	--
APR											
07...	1030	--	--	--	--	--	--	160	--	--	--
MAY											
05...	1345	2	2	100	100	0	10	120	0	1	20
29...	0930	--	--	--	--	--	--	190	--	--	--
JUN											
29...	1030	--	--	--	--	--	--	300	--	--	--
AUG											
03...	1500	--	--	--	--	--	--	180	--	--	--
28...	1500	--	--	--	--	--	--	120	--	--	--

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
JAN											
06...	--	--	--	400	50	--	--	--	--	490	480
FEB											
05...	--	--	--	610	90	--	--	--	--	380	340
MAR											
05...	--	--	--	370	40	--	--	--	--	690	650
APR											
07...	--	--	--	150	60	--	--	--	--	320	330
MAY											
05...	0	5	2	1300	10	3	2	30	30	180	120
29...	--	--	--	500	50	--	--	--	--	220	210
JUN											
29...	--	--	--	140	60	--	--	--	--	200	190
AUG											
03...	--	--	--	400	60	--	--	--	--	410	420
28...	--	--	--	1200	40	--	--	--	--	400	380

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
JAN											
06...	--	--	--	--	--	--	--	--	--	--	--
FEB											
05...	--	--	--	--	--	--	--	--	--	--	--
MAR											
05...	--	--	--	--	--	--	--	--	--	--	--
APR											
07...	--	--	--	--	--	--	--	--	--	--	--
MAY											
05...	.5	.3	5	5	1	1	3100	3000	40	10	--
29...	--	--	--	--	--	--	--	--	--	--	--
JUN											
29...	--	--	--	--	--	--	--	--	--	--	29.00
AUG											
03...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--

09367500 LA PLATA RIVER NEAR FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G) (01148)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
AUG 03...	1500	3	0	0	5	2	950	0	140	.01	0	6

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
AUG 03...	1500	<68	<.4	<38	1.2	<36	1.1	.10	8.8

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
DEC 01...	1610	21	6.0	118	--	--
JAN 06...	1325	11	3.5	21	--	--
FEB 05...	0930	13	.0	67	72	--
MAR 05...	1600	1.4	13.0	84	88	--
APR 07...	1030	1.4	13.5	31	35	--
MAY 05...	1345	2.8	21.0	77	95	--
29...	0930	1.3	16.0	38	84	29.00
JUN 29...	1030	.18	24.5	35	--	29.00

09367540 SAN JUAN RIVER NEAR FRUITLAND, NM--Continued

WATER-QUALITY RECORD

LOCATION.--Lat 36°44'25", long 108°24'09", in NW¼SE¼ sec.10, T.29 N., R.15W., San Juan County, Hydrologic Unit 14080105, on right bank 300 ft (91.4 m) downstream from Four Corners Power Plant highway bridge, 0.4 mi (0.64 km) west of Fruitland, 10 mi (16.1 km) downstream from La Plata River, 14.0 mi (22.5 km) upstream from Chaco River, and at mile 239 (385 km).
DRAINAGE AREA.--8,010 mi^2 (20,750 km^2), approximately.
PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT											
30...	1015	1540	437	8.2	14.5	8.0	11.6	160	63	49	9.5
NOV											
25...	1245	2020	450	8.3	3.0	6.5	10.9	150	50	45	8.6
DEC											
17...	0945	1960	431	8.0	8.0	5.5	10.6	160	58	48	9.3
JAN											
27...	1000	1560	429	8.2	1.0	2.0	11.8	150	60	47	8.4
FEB											
25...	0945	1240	450	8.2	7.5	6.0	10.1	160	64	51	9.0
MAR											
25...	1030	1160	472	8.0	11.0	7.5	10.6	170	76	54	9.6
APR											
22...	1000	776	569	8.0	18.0	15.0	8.9	190	84	61	10
MAY											
28...	1315	1210	462	7.9	30.0	20.5	8.4	170	75	55	8.2
JUN											
24...	1745	860	451	8.8	35.0	25.5	8.0	170	68	54	8.1
JUL											
23...	1000	859	468	8.2	30.0	21.0	7.5	180	79	57	8.9
AUG											
24...	1530	871	430	8.4	33.0	19.5	8.3	160	58	49	8.2
SEP											
08...	1700	2010	965	7.8	27.5	18.0	6.5	230	86	76	8.7

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
OCT											
30...	30	1.0	2.3	120	0	98	120	7.8	.7	8.7	288
NOV											
25...	26	.9	2.4	120	0	98	100	7.0	.2	8.6	273
DEC											
17...	26	.9	2.1	120	0	100	110	7.0	.3	9.7	271
JAN											
27...	28	1.0	1.8	110	0	92	110	7.5	.3	9.5	273
FEB											
25...	33	1.1	2.0	130	0	100	140	8.5	.3	8.5	294
MAR											
25...	33	1.1	2.1	120	0	98	130	7.9	.2	8.6	308
APR											
22...	44	1.4	2.2	130	0	110	170	10	.3	7.7	377
MAY											
28...	26	.9	2.1	120	0	97	120	11	.3	6.3	287
JUN											
24...	30	1.0	2.3	110	8	100	120	12	.3	7.0	287
JUL											
23...	32	1.1	2.2	120	0	100	120	9.5	.2	10	311
AUG											
24...	29	1.1	2.0	120	2	98	100	7.4	.2	9.9	274
SEP											
08...	130	3.9	4.8	170	0	140	350	13	.5	11	657

WATER-QUALITY RECORD

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT										
30...	287	--	--	--	--	40	20	10	--	--
NOV										
25...	258	.14	.020	1.2	.080	40	10	10	5.7	.9
DEC										
17...	273	--	--	--	--	20	20	10	--	--
JAN										
27...	268	--	--	--	--	20	30	10	--	--
FEB										
25...	313	.04	.060	.56	.120	10	20	20	3.6	.7
MAR										
25...	304	--	--	--	--	20	60	10	--	--
APR										
22...	371	--	--	--	--	30	20	20	--	--
MAY										
28...	288	.00	.080	1.1	.140	30	20	10	10	--
JUN										
24...	294	--	--	--	--	40	<10	8	--	--
JUL										
23...	300	--	--	--	--	30	10	10	--	--
AUG										
24...	267	.05	.070	.68	.180	30	12	5	2.3	.9
SEP										
08...	678	--	--	--	--	70	44	10	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
OCT											
30...	1015	--	--	--	--	--	--	40	--	--	--
NOV											
25...	1245	1	1	0	70	0	<1	40	1	<1	0
DEC											
17...	0945	--	--	--	--	--	--	20	--	--	--
JAN											
27...	1000	--	--	--	--	--	--	20	--	--	--
FEB											
25...	0945	--	--	--	--	--	--	10	--	--	--
MAR											
25...	1030	--	--	--	--	--	--	20	--	--	--
APR											
22...	1000	--	--	--	--	--	--	30	--	--	--
MAY											
28...	1315	2	2	100	70	0	<1	30	0	<1	10
JUN											
24...	1745	--	--	--	--	--	--	40	--	--	--
JUL											
23...	1000	--	--	--	--	--	--	30	--	--	--
AUG											
24...	1530	--	--	--	--	--	--	30	--	--	--
SEP											
08...	1700	--	--	--	--	--	--	70	--	--	--

09367540 SAN JUAN RIVER NEAR FRUITLAND, NM--Continued

WATER-QUALITY RECORD

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI) (01132)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
OCT											
30...	--	--	--	2100	20	--	--	--	--	110	10
NOV											
25...	0	23	4	4100	10	0	2	20	20	250	10
DEC											
17...	--	--	--	3600	20	--	--	--	--	220	10
JAN											
27...	--	--	--	1300	30	--	--	--	--	100	10
FEB											
25...	--	--	--	530	20	--	--	--	--	60	20
MAR											
25...	--	--	--	1400	60	--	--	--	--	110	10
APR											
22...	--	--	--	3400	20	--	--	--	--	210	20
MAY											
28...	0	14	2	3000	20	13	1	20	20	230	10
JUN											
24...	--	--	--	1700	<10	--	--	--	--	180	8
JUL											
23...	--	--	--	3200	10	--	--	--	--	160	10
AUG											
24...	--	--	--	6500	12	--	--	--	--	220	5
SEP											
08...	--	--	--	420000	44	--	--	--	--	20000	10

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR) (01082)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT										
30...	--	--	--	--	--	--	--	--	--	--
NOV										
25...	.0	.0	5	0	0	1	500	560	50	7
DEC										
17...	--	--	--	--	--	--	--	--	--	--
JAN										
27...	--	--	--	--	--	--	--	--	--	--
FEB										
25...	--	--	--	--	--	--	--	--	--	--
MAR										
25...	--	--	--	--	--	--	--	--	--	--
APR										
22...	--	--	--	--	--	--	--	--	--	--
MAY										
28...	.1	.0	2	2	0	0	680	700	80	4
JUN										
24...	--	--	--	--	--	--	--	--	--	--
JUL										
23...	--	--	--	--	--	--	--	--	--	--
AUG										
24...	--	--	--	--	--	--	--	--	--	--
SEP										
08...	--	--	--	--	--	--	--	--	--	--

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
AUG									
24...	1530	<5.8	16	4.2	12	4.0	11	.06	1.5

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)
OCT										
30...	1015	1540	8.0	209	--	--	--	--	--	--
NOV										
25...	1245	2020	6.5	412	--	--	--	--	--	--
DEC										
17...	0945	1960	5.5	540	--	--	--	--	--	--
JAN										
27...	1000	1560	2.0	103	--	--	--	--	--	--
FEB										
25...	0945	1240	6.0	59	--	--	--	--	--	--
MAR										
25...	1030	1160	7.5	96	--	--	--	--	--	--
APR										
22...	1000	776	15.0	--	88	--	--	--	--	--
MAY										
28...	1315	1210	20.5	--	67	1	1	8	88	100
JUN										
24...	1745	860	25.5	25	--	--	--	--	--	--
JUL										
14...	1700	2620	20.5	11000	--	--	--	--	--	--
23...	1000	859	21.0	225	--	--	--	--	--	--
AUG										
24...	1530	871	19.5	539	--	--	--	--	--	--
SEP										
08...	1700	2010	18.0	58200	95	--	--	--	--	--
21...	1345	1130	17.0	2890	--	--	--	--	--	--

09367555 SHUMWAY ARROYO NEAR FRUITLAND, NM

LOCATION.--Lat 36°48'23", long 108°23'42", in NE¼NE¼ sec. 22, T.30 N., R.15 W., San Juan County, Hydrologic Unit 14080102, on right bank 1.7 mi (2.7 km) downstream from Narrows Wash, 2.0 mi (3.2 km) northeast of San Juan Power Plant, 4.6 mi (7.4 km) north of Fruitland, and at mile 8.5 (13.7 km).

DRAINAGE AREA.--62.8 mi^2 (163 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,240 ft (1,597 m), from topographic map.

REMARKS.--Water-discharge records fair.

AVERAGE DISCHARGE.--6 years, 0.630 ft^3/s (0.018 m^3/s), 456 acre-ft/yr (562,200 m^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,000 ft^3/s (142 m^3/s) May 20, 1978, gage height, 13.00 ft (3.962 m), from floodmarks, from rating curve extended above 4.0 ft^3/s (0.11 m^3/s) on basis of slope-area measurements of peak flow at gage heights, 9.98 ft (3.042 m) and 13.00 ft (3.962 m); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 30 ft^3/s (0.85 m^3/s) and maximun (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
July 12	0030	*650	18.4	4.83	1.472	Sept. 5	1630	126	3.57	2.67	0.814
July 15	2000	168	4.76	2.94	0.896						

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.46	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.8
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.3	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	58	.80	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.21	.00	.00	.00	.00	.00	.00	.00	.00	11	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.29	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.21	.00	.00	.00	.00	.00	.00	.00	.00	74.19	.80	8.02
MEAN	.007	.000	.000	.000	.000	.000	.000	.000	.000	2.39	.026	.27
MAX	.21	.00	.00	.00	.00	.00	.00	.00	.00	58	.80	7.8
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.4	.00	.00	.00	.00	.00	.00	.00	.00	147	1.6	16

CAL YR 1980 TOTAL 17.27 MEAN .047 MAX 4.8 MIN .00 AC-FT 34
WTR YR 1981 TOTAL 83.22 MEAN .23 MAX 58 MIN .00 AC-FT 165

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM

LOCATION.--Lat 36°46'24", long 108°26'26", in SE¼NW¼ sec.32, T.30 N., R.15. W, San Juan County, Hydrologic Unit 14080105, on right bank 0.6 mi (1.0 km) downstream from Westwater Arroyo, 0.7 mi (1.1 km) upstream from highway to San Juan Power Plant, 14 mi (22 km) west of Farmington, and at mile 4.5 (7.2 km).

DRAINAGE AREA.--73.8 mi^2 (191 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,130 ft (1,564 m), from topographic map. Prior to May 20, 1978, at datum, 10.0 ft (3.048 m) higher.

REMARKS.--Water-discharge records good except those above 10 ft^3/s (0.28 m^3/s), which are poor. Base flow is mostly waste water from San Juan Power Plant.

AVERAGE DISCHARGE.--7 years, 2.22 ft^3/s (0.063 m^3/s), 1,610 acre-ft/yr (1.99 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,420 ft^3/s (182 m^3/s) May 20, 1978, gage height, 18.94 ft (5.773 m), from floodmark, from rating curve extended above 4.0 ft^3/s (0.11 m^3/s) on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 30 ft^3/s (0.85 m^3/s), and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
July 12	0200	*562	15.9	7.57	2.307	Sept. 5	1815	71	2.01	5.95	1.814
July 15	2200	310	8.78	6.59	2.009						

Minimum daily discharge, 0.46 ft^3/s (0.013 m^3/s) Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	2.0	1.8	1.9	4.5	2.1	2.3	1.1	1.9	5.5	1.3	2.5
2	3.3	2.7	1.8	1.8	4.5	2.1	1.8	2.0	2.2	4.2	1.4	1.8
3	1.0	2.2	3.6	1.9	4.5	2.1	1.8	2.4	2.1	1.7	.88	1.8
4	.88	1.7	4.7	2.0	4.5	2.4	1.7	1.9	1.9	2.3	2.2	3.2
5	1.6	1.7	3.1	1.7	4.5	2.1	1.9	1.6	1.7	2.6	2.0	12
6	1.1	1.8	3.1	1.8	4.6	2.3	2.2	1.8	1.7	2.7	1.5	3.4
7	1.1	1.6	3.2	1.9	4.6	3.0	2.0	1.6	2.2	2.0	1.4	2.7
8	.46	1.7	4.0	1.9	4.6	1.8	2.4	1.7	3.0	3.9	1.2	1.9
9	2.7	1.5	3.5	.85	4.6	3.0	1.8	1.8	2.1	3.2	1.1	2.8
10	1.8	1.4	3.5	.57	4.6	2.5	2.2	1.8	3.0	.70	1.2	3.5
11	1.8	1.2	3.2	.85	4.2	2.3	1.7	1.7	2.3	1.5	1.6	3.5
12	2.6	1.5	2.6	1.3	4.4	2.0	1.9	1.5	2.6	142	1.9	3.1
13	1.9	1.3	3.2	3.0	3.9	1.9	2.2	1.9	2.5	6.4	3.7	2.2
14	2.5	2.3	2.8	2.9	5.2	1.7	2.0	1.7	2.2	2.2	4.0	4.0
15	1.9	4.1	2.1	3.1	3.9	1.7	2.2	1.9	2.1	28	3.6	4.2
16	2.2	1.7	3.6	3.7	3.6	1.7	2.2	2.0	2.3	17	3.9	2.1
17	1.8	2.6	3.1	2.3	2.8	1.6	1.9	2.2	1.5	2.3	3.4	2.8
18	2.8	2.6	2.5	2.7	3.2	2.1	2.2	1.8	1.4	3.4	2.6	2.6
19	2.1	2.8	2.6	3.0	3.3	2.0	2.0	1.9	1.8	5.7	3.0	2.7
20	2.8	3.9	2.1	5.5	5.0	1.8	1.7	1.9	1.9	3.3	3.6	2.9
21	2.6	2.7	2.7	7.3	3.3	1.9	1.7	1.5	2.0	1.7	3.3	2.1
22	2.3	2.9	2.4	4.7	2.8	1.9	1.8	1.5	2.1	1.9	1.8	2.0
23	2.2	3.1	2.5	5.8	2.7	2.0	1.8	2.2	2.4	1.3	1.8	1.6
24	1.8	4.8	4.7	5.4	2.3	1.8	3.2	2.2	2.2	3.7	1.9	1.7
25	2.5	2.7	5.8	5.1	2.5	2.7	1.6	3.2	1.7	1.3	1.8	2.9
26	1.6	1.7	4.2	4.8	3.7	2.3	2.0	2.8	2.0	2.1	3.0	4.2
27	1.6	1.8	2.9	4.4	2.8	3.0	1.6	1.9	1.7	1.7	3.2	3.1
28	1.6	1.4	2.1	4.4	1.9	3.0	1.8	1.4	1.7	2.2	2.1	2.7
29	2.0	2.4	1.9	4.4	---	2.4	2.1	1.6	1.8	1.8	2.5	2.3
30	1.5	2.3	3.2	4.4	---	3.2	1.3	2.5	2.2	1.2	2.7	2.5
31	1.8	---	2.1	4.5	---	3.8	---	2.2	---	.93	3.6	---
TOTAL	60.94	68.1	94.6	99.87	107.0	70.2	59.0	59.2	62.2	260.43	73.18	90.8
MEAN	1.97	2.27	3.05	3.22	3.82	2.26	1.97	1.91	2.07	8.40	2.36	3.03
MAX	3.3	4.8	5.8	7.3	5.2	3.8	3.2	3.2	3.0	142	4.0	12
MIN	.46	1.2	1.8	.57	1.9	1.6	1.3	1.1	1.4	.70	.88	1.6
AC-FT	121	135	188	198	212	139	117	117	123	517	145	180

CAL YR 1980 TOTAL 969.14 MEAN 2.65 MAX 21 MIN .08 AC-FT 1920
WTR YR 1981 TOTAL 1105.52 MEAN 3.03 MAX 142 MIN .46 AC-FT 2190

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

REMARKS.--Under the heading SAMPLE SOURCE numerical values are used to indicate method of sampling; 29 indicates dip or grab sample and 40 indicates single-stage sample.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	ACIDITY (MG/L AS H) (71825)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT											
29...	1030	1.7	10500	4.0	3.0	11.0	.2	630	--	17	120
NOV											
18...	1245	2.6	10900	6.0	2.0	11.0	.5	840	610	--	230
DEC											
15...	1245	2.1	8500	3.7	7.5	11.5	5.8	930	--	17	250
JAN											
06...	1200	1.8	12400	5.3	.0	11.0	.3	560	--	21	79
FEB											
09...	1515	4.6	9500	6.3	3.5	10.5	.2	580	--	9.0	99
MAR											
05...	1200	2.3	9600	5.9	9.0	17.0	.2	870	--	7.0	250
APR											
10...	1415	2.3	9400	6.9	24.5	26.0	.1	540	--	5.0	110
MAY											
20...	1230	2.3	6600	7.7	20.0	15.5	7.5	1300	1200	--	340
JUN											
22...	1215	2.3	7500	4.1	35.0	30.0	4.2	980	--	.8	280
JUL											
01...	1400	9.7	7850	7.0	27.0	22.0	--	1400	1300	--	360
AUG											
04...	1330	4.9	9150	6.4	35.5	31.0	5.5	1200	--	1.0	320
SEP											
03...	1630	2.0	10400	6.9	31.0	30.0	.1	220	--	3.0	28

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
OCT											
29...	79	2400	42	17	--	--	--	6400	170	24	32
NOV											
18...	64	2800	42	19	280	0	230	6300	140	.0	12
DEC											
15...	74	1900	27	9.4	--	--	--	4300	190	23	18
JAN											
06...	87	2800	52	9.4	--	--	--	8300	260	1.5	1.9
FEB											
09...	82	2300	41	10	--	0	--	5400	220	28	22
MAR											
05...	59	2600	38	11	--	0	--	5200	190	19	25
APR											
10...	64	2200	41	7.1	--	--	--	4800	220	17	17
MAY											
20...	110	1200	14	13	86	0	71	3600	190	17	18
JUN											
22...	67	1600	22	12	--	--	--	4200	220	4.6	20
JUL											
01...	120	1400	16	18	86	0	70	3900	100	6.7	25
AUG											
04...	90	2000	25	11	--	--	--	4700	260	20	26
SEP											
03...	37	2400	70	13	--	--	--	5000	320	26	23

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT											
29...	10500	--	--	--	--	--	4200	2400	640	--	--
NOV											
18...	10100	9710	.00	.000	4.6	.540	3300	3200	520	11	2.9
DEC											
15...	7020	--	--	--	--	--	7600	1200	570	--	--
JAN											
06...	11000	--	--	--	--	--	11000	1300	730	--	--
FEB											
09...	8130	--	3.3	1.00	5.5	.430	5400	950	700	13	2.5
MAR											
05...	8590	--	--	--	--	--	6700	360	600	--	--
APR											
10...	7930	--	--	--	--	--	4900	160	430	--	--
MAY											
20...	5780	5540	2.0	.350	4.4	.180	5500	90	260	9.9	2.3
JUN											
22...	6460	--	--	--	--	--	2600	330	230	--	--
JUL											
01...	6580	5980	--	--	--	--	2900	120	830	--	--
AUG											
04...	7840	--	.00	.410	8.3	.270	6200	290	440	7.9	1.0
SEP											
03...	8810	--	--	--	--	--	6500	110	770	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
OCT											
29...	1030	--	--	--	--	--	--	4200	--	--	--
NOV											
18...	1245	5	9	300	200	10	10	3300	13	2	60
DEC											
15...	1245	--	--	--	--	--	--	7600	--	--	--
JAN											
06...	1200	--	--	--	--	--	--	11000	--	--	--
FEB											
09...	1515	--	--	--	--	--	--	5400	--	--	--
MAR											
05...	1200	--	--	--	--	--	--	6700	--	--	--
APR											
10...	1415	--	--	--	--	--	--	4900	--	--	--
MAY											
20...	1230	5	3	300	100	0	0	5500	1	1	40
JUN											
22...	1215	--	--	--	--	--	--	2600	--	--	--
JUL											
01...	1400	--	--	--	--	--	--	2900	--	--	--
AUG											
04...	1330	--	--	--	--	--	--	6200	--	--	--
SEP											
03...	1630	--	--	--	--	--	--	6500	--	--	--

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI) (01132)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
OCT											
29...	--	--	--	5000	2400	--	--	--	--	650	640
NOV											
18...	0	110	130	14000	3200	22	5	120	110	540	520
DEC											
15...	--	--	--	3000	1200	--	--	--	--	610	570
JAN											
06...	--	--	--	2300	1300	--	--	--	--	680	730
FEB											
09...	--	--	--	13000	950	--	--	--	--	800	700
MAR											
05...	--	--	--	8500	360	--	--	--	--	630	600
APR											
10...	--	--	--	2800	160	--	--	--	--	450	430
MAY											
20...	10	25	5	3800	90	10	2	130	130	300	260
JUN											
22...	--	--	--	1100	330	--	--	--	--	250	230
JUL											
01...	--	--	--	58000	120	--	--	--	--	160	830
AUG											
04...	--	--	--	3800	290	--	--	--	--	5000	440
SEP											
03...	--	--	--	5500	110	--	--	--	--	820	770

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR) (01082)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT										
29...	--	--	--	--	--	--	--	--	--	--
NOV										
18...	1.6	1.7	73	58	260	230	920	970	290	280
DEC										
15...	--	--	--	--	--	--	--	--	--	--
JAN										
06...	--	--	--	--	--	--	--	--	--	--
FEB										
09...	--	--	--	--	--	--	--	--	--	--
MAR										
05...	--	--	--	--	--	--	--	--	--	--
APR										
10...	--	--	--	--	--	--	--	--	--	--
MAY										
20...	.6	.3	32	19	500	500	2400	2400	100	80
JUN										
22...	--	--	--	--	--	--	--	--	--	--
JUL										
01...	--	--	--	--	--	--	--	--	--	--
AUG										
04...	--	--	--	--	--	--	--	--	--	--
SEP										
03...	--	--	--	--	--	--	--	--	--	--

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
AUG									
04...	1330	<210	20	<88	9.4	<84	9.1	.11	3.8

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .008 MM (70339)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .031 MM (70341)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)
OCT												
29...	1030	1.7	11.0	525	--	--	--	--	--	--	--	--
NOV												
18...	1245	2.6	11.0	--	--	--	--	--	--	--	--	--
DEC												
15...	1245	2.1	11.5	380	--	--	--	--	--	--	--	--
JAN												
06...	1200	1.8	11.0	232	--	--	--	--	--	--	--	--
FEB												
09...	1515	4.6	10.5	680	--	--	--	--	--	--	--	--
09...	1615	4.6	10.5	1460	48	61	69	78	83	87	92	98
MAR												
05...	1200	2.3	17.0	551	--	--	--	--	--	--	--	--
APR												
10...	1415	2.3	26.0	493	--	--	--	--	--	--	--	--
MAY												
20...	1230	2.3	15.5	--	--	--	--	--	--	52	--	--
JUN												
22...	1215	2.3	30.0	97	--	--	--	--	--	--	--	--
JUL												
01...	1400	9.7	22.0	3640	--	--	--	--	--	82	--	--
22...	1230	1.8	30.0	35	--	--	--	--	--	--	--	--
AUG												
04...	1330	4.9	31.0	248	--	--	--	--	--	--	--	--
SEP												
03...	1630	2.0	30.0	110	--	--	--	--	--	--	--	--
21...	1210	2.2	22.0	124	--	--	--	--	--	--	--	--

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	SAMPLE SOURCE (72005)
OCT												
29...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
18...	--	--	6	22	85	98	99	100	--	--	--	--
DEC												
15...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
06...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	99	100	--	--	--	--	--	--	--	--	--	29.00
MAR												
05...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
10...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
20...	--	--	63	74	81	88	90	94	97	98	100	--
JUN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
01...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
04...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
03...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--

09367660 CHACO WASH NEAR STAR LAKE TRADING POST, NM

LOCATION.--Lat 35°56'07", long 107°31'39", in NE¼NW¼SE¼ sec.25, T.20 N., R.7 W., McKinley County, Hydrologic Unit 14080106, on right bank, 4.8 mi (7.7 km) northwest of Star Lake Trading Post, and 7.6 mi (12.2 km) southeast of Pueblo Pintada.

DRAINAGE AREA.--59.0 mi^2 (153 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,580 ft (2,006 m), from topographic map.

REMARKS.--Water-discharge records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 223 ft^3/s (6.32 m^3/s), Sept. 16, 1981, gage height, 7.91 ft (2.411 m) on basis of step-backwater analysis; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 223 ft^3/s (6.32 m^3/s) at 2315 hours Sept. 16, gage height, 7.91 ft (2.411 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.25	.01	.00	.00	1.9	.00	.00
2	.00	.00	.00	.00	.00	.22	.00	.00	.00	1.3	.00	.00
3	.00	.00	.00	.00	.00	1.7	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.80	.00	.00	.00	.00	.00	.17
5	.00	.00	.00	.00	.00	.18	.00	.00	.00	.00	.00	17
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.5
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	19	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.56	5.6	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	10	.20	.00
10	.00	.00	.00	.00	.00	.09	.00	.00	.00	2.0	.61	.00
11	.00	.00	.00	.00	.00	1.4	.00	.00	.00	15	.35	.00
12	.00	.00	.00	.00	.00	.45	.00	.00	.00	18	.00	.00
13	.00	.00	.00	.00	.00	.46	.00	.00	.00	1.2	.00	.00
14	.00	.00	.00	.00	.00	.66	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	1.5	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.42	.00	.00	.00	.00	.00	17
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	46
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.1	1.3
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.83	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.2	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.15	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.18	.00
29	.00	.00	.00	.00	---	1.1	.00	.18	.64	.00	13	.00
30	.00	.00	.00	.00	---	1.0	.00	.00	.00	.00	.56	.00
31	.00	---	.00	.00	---	.30	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	10.53	.01	.18	.64	51.31	41.43	83.97
MEAN	.000	.000	.000	.000	.000	.34	.000	.006	.021	1.66	1.34	2.80
MAX	.00	.00	.00	.00	.00	1.7	.01	.18	.64	18	19	46
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	21	.02	.4	1.3	102	82	167

CAL YR 1980 TOTAL 60.73 MEAN .17 MAX 8.0 MIN .00 AC-FT 120
WTR YR 1981 TOTAL 188.07 MEAN .52 MAX 46 MIN .00 AC-FT 373

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

REMARKS.-Under the heading of SAMPLE SOURCE numerical values are used to indicate sampling method; 40 indicates the single-stage sample.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
MAR										
01...	2010	E1.2	382	7.9	--	--	--	--	--	--
03...	1905	E4.4	350	7.3	--	--	--	--	--	--
04...	1245	.49	395	8.2	4.0	6.0	8.8	13	0	4.2
04...	1900	E.87	547	7.5	--	--	--	--	--	--
11...	1730	E4.1	440	7.1	--	--	--	--	--	--
JUL										
01...	1200	E4.5	365	7.1	--	--	--	--	--	--
08...	1150	E1.3	470	7.9	--	--	--	--	--	--
08...	2400	E4.6	312	7.7	--	--	--	--	--	--
09...	0120	E14	320	7.0	--	--	--	--	--	--
AUG										
07...	1800	E1.8	418	7.2	--	--	--	--	--	--
07...	1815	E5.4	498	7.4	--	--	--	--	--	--
07...	2100	E16	603	7.4	--	--	--	--	--	--
07...	2105	E40	670	7.2	--	--	--	--	--	--
SEP										
16...	1845	E1.4	440	7.2	--	--	--	--	--	--
16...	1900	E4.7	423	7.2	--	--	--	--	--	--
16...	1930	E16	378	7.1	--	--	--	--	--	--
16...	2200	E38	420	7.1	--	--	--	--	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)
MAR									
01...	--	--	--	--	220	0	180	--	--
03...	--	--	--	--	160	0	130	--	--
04...	.7	76	9.0	1.8	98	0	80	--	--
04...	--	--	--	--	120	0	98	100	--
11...	--	--	--	--	110	0	90	92	--
JUL									
01...	--	--	--	--	120	0	97	--	--
08...	--	--	--	--	350	0	290	--	--
08...	--	--	--	--	150	0	120	--	--
09...	--	--	--	--	110	0	93	--	--
AUG									
07...	--	--	--	--	200	0	160	--	--
07...	--	--	--	--	190	0	160	--	--
07...	--	--	--	--	--	--	--	--	.00
07...	--	--	--	--	230	0	190	--	--
SEP									
16...	--	--	--	--	180	0	148	--	--
16...	--	--	--	--	160	0	131	--	--
16...	--	--	--	--	160	0	131	--	--
16...	--	--	--	--	180	0	148	--	--

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	ALKALINITY, CARBONATE IT-FLD (MG/L - CACO3) (99430)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
MAR									
01...	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--
04...	--	--	110	3.9	.4	9.9	277	267	2.5
04...	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--
JUL									
01...	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
AUG									
07...	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--
07...	240	200	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--
SEP									
16...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
MAR									
01...	--	--	--	--	--	--	--	--	40.00
03...	--	--	--	--	--	--	--	--	40.00
04...	6.70	.80	1.50	260	310	0	13	19	--
04...	--	--	--	--	--	--	--	--	40.00
11...	--	--	--	--	--	--	--	--	40.00
JUL									
01...	--	--	--	--	--	--	--	--	40.00
08...	--	--	--	--	--	--	--	--	40.00
08...	--	--	--	--	--	--	--	--	40.00
09...	--	--	--	--	--	--	--	--	40.00
AUG									
07...	--	--	--	--	--	--	--	--	40.00
07...	--	--	--	--	--	--	--	--	40.00
07...	--	--	--	--	--	--	--	--	40.00
07...	--	--	--	--	--	--	--	--	40.00
SEP									
16...	--	--	--	--	--	--	--	--	40.00
16...	--	--	--	--	--	--	--	--	40.00
16...	--	--	--	--	--	--	--	--	40.00
16...	--	--	--	--	--	--	--	--	40.00

SAN JUAN RIVER BASIN
09367660 CHACO WASH NEAR STAR LAKE TRADING POST, NM--Continued
WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
MAR									
01...	2010	--	--	--	--	--	--	--	--
03...	1905	--	--	--	--	--	--	--	--
04...	1245	10	1	10	0	260	2	0	60
04...	1900	--	--	--	--	--	--	--	--
11...	1730	--	--	--	--	--	--	--	--
JUL									
01...	1200	--	--	--	--	--	--	--	--
08...	1150	--	--	--	--	--	--	--	--
08...	2400	--	--	--	--	--	--	--	--
09...	0120	--	--	--	--	--	--	--	--
AUG									
07...	1800	--	--	--	--	--	--	--	--
07...	1815	--	--	--	--	--	--	--	--
07...	2100	--	--	--	--	--	--	--	--
07...	2105	--	--	--	--	--	--	--	--
SEP									
16...	1845	--	--	--	--	--	--	--	--
16...	1900	--	--	--	--	--	--	--	--
16...	1930	--	--	--	--	--	--	--	--
16...	2200	--	--	--	--	--	--	--	--

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
MAR									
01...	--	--	--	220000	--	--	--	4000	--
03...	--	--	--	180000	--	--	--	2800	--
04...	0	260	21	120000	310	160	0	1600	0
04...	--	--	--	190000	--	--	--	2400	--
11...	--	--	--	220000	--	--	--	3400	--
JUL									
01...	--	--	--	270000	--	--	--	5800	--
08...	--	--	--	280000	--	--	--	5800	--
08...	--	--	--	270000	--	--	--	6300	--
09...	--	--	--	230000	--	--	--	4800	--
AUG									
07...	--	--	--	320000	--	--	--	7200	--
07...	--	--	--	550000	--	--	--	16000	--
07...	--	--	--	440000	--	--	--	12000	--
07...	--	--	--	490000	--	--	--	11000	--
SEP									
16...	--	--	--	580000	--	--	--	17000	--
16...	--	--	--	660000	--	--	--	24000	--
16...	--	--	--	380000	--	--	--	8600	--
16...	--	--	--	380000	--	--	--	10000	--

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
MAR									
01...	--	--	--	--	--	--	--	--	40.00
03...	--	--	--	--	--	--	--	--	40.00
04...	.5	.1	62	3	1	1	640	30	--
04...	--	--	--	--	--	--	--	--	40.00
11...	--	--	--	--	--	--	--	--	40.00
JUL									
01...	--	--	--	--	--	--	--	--	40.00
08...	--	--	--	--	--	--	--	--	40.00
08...	--	--	--	--	--	--	--	--	40.00
09...	--	--	--	--	--	--	--	--	40.00
AUG									
07...	--	--	--	--	--	--	--	--	40.00
07...	--	--	--	--	--	--	--	--	40.00
07...	--	--	--	--	--	--	--	--	40.00
07...	--	--	--	--	--	--	--	--	40.00
SEP									
16...	--	--	--	--	--	--	--	--	40.00
16...	--	--	--	--	--	--	--	--	40.00
16...	--	--	--	--	--	--	--	--	40.00
16...	--	--	--	--	--	--	--	--	40.00

09367660 CHACO WASH NEAR STAR LAKE TRADING POST, NM--Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)
MAR										
01...	2010	E1.2	--	14100	--	--	--	--	--	--
03...	1905	E4.4	--	18500	--	--	--	--	--	--
04...	1245	.49	6.0	11600	--	--	--	--	--	--
04...	1900	E.87	--	12700	--	--	--	--	--	--
11...	1730	E4.1	--	14800	--	--	--	--	--	--
JUN										
29...	0915	E1.2	--	28300	--	--	--	--	--	--
JUL										
01...	1200	E4.5	--	19300	--	--	--	--	--	--
08...	1150	E1.3	--	19600	--	--	--	--	--	--
08...	2400	E4.6	--	17400	--	--	--	--	--	--
09...	0120	E14	--	16800	--	--	--	--	--	--
AUG										
07...	1800	E1.8	--	26000	49	58	81	96	98	100
07...	1815	E5.4	--	52500	58	68	94	--	--	--
07...	2100	E16	--	35800	45	55	81	99	100	--
07...	2105	E40	--	30700	53	66	91	--	--	--
SEP										
16...	1845	E1.4	--	49100	49	56	80	98	99	100
16...	1900	E4.7	--	106000	32	35	54	75	86	98
16...	1930	E16	--	30000	49	61	84	100	--	--
16...	2200	E38	--	27400	57	71	88	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	SAMPLE SOURCE (72005)
MAR									
01...	--	--	--	--	--	--	--	--	40.00
03...	--	--	--	--	--	--	--	--	40.00
04...	--	--	--	4	15	70	94	100	--
04...	--	--	--	--	--	--	--	--	40.00
11...	--	--	--	--	--	--	--	--	40.00
JUN									
29...	--	--	--	--	--	--	--	--	40.00
JUL									
01...	--	87	--	--	--	--	--	--	40.00
08...	--	98	--	--	--	--	--	--	40.00
08...	--	97	--	--	--	--	--	--	40.00
09...	--	100	--	--	--	--	--	--	40.00
AUG									
07...	--	--	--	--	--	--	--	--	40.00
07...	--	99	100	--	--	--	--	--	40.00
07...	--	--	--	--	--	--	--	--	40.00
07...	--	99	100	--	--	--	--	--	40.00
SEP									
16...	--	--	--	--	--	--	--	--	40.00
16...	100	--	--	--	--	--	--	--	40.00
16...	--	--	--	--	--	--	--	--	40.00
16...	--	99	100	--	--	--	--	--	40.00

09367676 CHACO WASH AT EAST BOUNDARY CHACO NATIONAL MONUMENT, NM

LOCATION.--Lat 36°01'12", long 107°51'04", in NE¼SW¼ sec.25, T.21N., R.10W., San Juan County, Hydrologic Unit 14080106, in Chaco Canyon National Monument, on right bank, 0.4 mi (0.6km) downstream from east boundary of chaco Canyon National Monument, 1.0 mi (1.6km) upstream from Wijiji Ruins and 4.2 mi (6.8km) east of Chaco Canyon National Monument Visitors Center.

DRAINAGE AREA.--364 mi^2 (943 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.-- March 1980 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,220 ft (1,895.9 m), from topographic map.

REMARKS.--Water-discharge records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 343 ft^3/s (9.71 m^3/s) Sept. 18, 1981, gage height, 4.55 ft (1.387 m), from rating curve extended above 1.0 ft^3/s (0.028 m^3/s) on basis of slope-area measurement at gage height 3.42 ft (1.042 m); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period March to September 1980, 10 ft^3/s (0.28 m^3/s) Sept. 11, gage height, 1.47 ft 0.448 m; no flow most of time.

1981 water year: Maximum discharge, 343 ft^3/s (9.71 m^3/s) Sept. 18, gage height, 4.55 ft (1.387 m), from rating curve-extended above 1.0 ft^3/s (0.028 m^3/s) on basis of slope-area measurement at gage height 3.42 ft (1.042 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, APRIL 1980 TO SEPTEMBER 1981

September 11, 1980	2.0	June 29, 1981	1.5	July 17, 1981	0.02
September 12, 1980	0.92	June 30, 1981	3.0	August 8, 1981	37
March 16, 1981	2.7	July 1, 1981	0.20	August 9, 1981	5.4
March 17, 1981	3.3	July 8, 1981	0.10	August 10, 1981	12
March 18, 1981	2.2	July 9, 1981	0.60	August 11, 1981	3.6
March 19, 1981	1.7	July 10, 1981	0.20	September 6, 1981	3.6
March 20, 1981	1.5	July 11, 1981	0.15	September 7, 1981	3.6
May 30, 1981	4.3	July 12, 1981	8.0	September 8, 1981	0.85
May 31, 1981	0.74	July 13, 1981	30	September 17, 1981	4.7
June 1, 1981	0.14	July 14, 1981	18	September 18, 1981	58
June 28, 1981	1.0	July 15, 1981	2.5	September 19, 1981	3.6
		July 16, 1981	0.20	September 20, 1981	3.1

Month	cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
September 1980	2.92	2.0	0	0.097	5.8
March 1981	11.40	3.3	0	0.37	23
May 1981	5.04	4.3	0	0.16	10
June 1981	5.64	3.0	0	0.19	11
July 1981	59.97	30	0	1.93	119
August 1981	58.00	37	0	1.87	115
September 1981	77.45	58	0	2.58	154
WTR YR 1981	217.50	58	0	0.60	431

NOTE: Flow occurred only on days listed above.

09367676 CHACO WASH AT EAST BOUNDARY AT CHACO CANYON NATIONAL MONUMENT, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June to September 1981.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)
JUN 30...	1120	E10	700	7.2	16.0	250	82	9.5	58	1.6

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
JUN 30...	8.1	270	23	.4	10	480	210	90	1000

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
JUN 30...	1120	100	4100	200	50	210	3	370	800	530000	90

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)
JUN 30...	530	590	10	1500	1000	3.3	470	10	2400	840	2000

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JUN 30...	1120	E10	16.0	76400	83

09367678 FAJADA WASH AT CHACO CANYON NATIONAL MONUMENT, NM

LOCATION.--Lat 36°01'03", long 107°55'04", in SW¼SE¼sec.29, T.21N., R.10W., San Juan County, Hydrologic Unit 14080106, in Chaco Canyon National Monument, on left bank 300 ft (91.4 m) downstream from south boundary of Chaco Canyon National Monument, 0.5 mi (0.80 km) west of Fajada Butte, 0.7 mi (1.1km) upstream from mouth and 1.0 mi (1.6 km) southwest of Chaco Canyon National Monument Visitors Center.

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

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1980 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,155 ft (1,876.0 m), from topographic map.

REMARKS.--Water-discharge records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 491 ft^3/s (13.9 m^3/s) June 30, 1981, gage height, 5.68 ft (1.731 m), from rating curve extended above 25 ft^3/s (0.71 m^3/s) on basis of slope-area measurement of peak flow; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period March to September 1980, 25 ft^3/s (0.798 m^3/s) Sept. 9, gage height, 1.30 ft (0.396 m); no flow most of time.

1981 water year: Maximum dishcarge 491 ft^3/s (13.9 m^3/s) June 30, gage height, 5.68 ft (1.731 m), from rating curve extended above 25 ft^3/s (0.71 m^3/s) on basis of slope-area measurement of peak flow; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, APRIL 1980 TO SEPTEMBER 1981

September 9, 1980	3.5	March 30, 1981	1.5	July 9, 1981	0.42
September 11, 1980	2.6	May 29, 1981	2.0	July 10, 1981	2.3
March 3, 1981	1.3	May 30, 1981	2.1	July 11, 1981	0.55
March 4, 1981	1.9	June 30, 1981	76	July 13, 1981	42
March 5, 1981	1.8	July 1, 1981	8.5	July 14, 1981	14
March 15, 1981	3.4	July 2, 1981	1.6	July 15, 1981	0.72
March 16, 1981	3.0	July 3, 1981	0.15	July 26, 1981	3.2
March 29, 1981	0.96	July 8, 1981	0.03	July 27, 1981	0.06

Month	cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
September 1980	6.10	3.5	0	0.20	12
March 1981	13.86	3.4	0	0.45	27
May 1981	4.10	2.1	0	0.13	8.1
June 1981	76.00	76	0	2.53	151
July 1981	73.53	42	0	2.37	146
WTR YR 1981	167.49	76	0	0.46	332

NOTE: Flow occurred only on days listed above.

PERIOD OF RECORD.--June to September 1981.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)
JUN										
30...	1015	30	320	8.0	16.0	15	4.8	.7	52	5.9
JUL										
01...	1030	23	360	8.0	19.5	8	2.3	.4	61	9.8

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
JUN									
30...	2.6	27	37	1.0	5.7	179	180	120	0
JUL									
01...	2.0	11	4.5	.6	6.2	210	190	180	0

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
JUN											
30...	1015	20	3300	100	20	180	1	180	330	260000	120
JUL											
01...	1030	--	1800	0	20	190	1	110	280	200000	180

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)
JUN											
30...	140	290	10	5900	0	4.5	100	3	330	140	1100
JUL											
01...	120	200	10	3000	0	--	84	6	170	110	860

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)
JUN							
30...	1015	30	16.0	16700	99	--	--
JUL							
01...	1030	23	19.5	15500	98	--	--
06...	1400	--	--	--	--	13	21

DATE	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
JUN							
30...	--	--	--	--	--	--	--
JUL							
01...	--	--	--	--	--	--	--
06...	68	76	78	84	89	95	100

09367680 CHACO WASH AT CHACO CANYON NATIONAL MONUMENT, NM

LOCATION.--Lat 36°01'43", long 107°55'04", in NW¼NE¼ sec. 29, T.21 N., R.10 W., San Juan County, Hydrologic Unit 14080106, on downstream side of center bridge pier, 800 ft (240 m) downstream from Fajada Wash, and 0.5 mi (0.8 km) southwest of Chaco Canyon National Monument Visitors Center.

DRAINAGE AREA.--578 mi^2 (1,497 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1976 to current year.

REVISED RECORDS.--WDR NM-80-1: 1979.

GAGE.--Water-stage recorder. Altitude of gage is 6,140 ft (1,871 m), from topographic map.

REMARKS.--Water-discharge records fair.

AVERAGE DISCHARGE.--5 years, 5.00 ft^3/s (0.142 m^3/s), 3,620 acre-ft/yr (4.46 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,260 ft^3/s (35.7 m^3/s) Jan. 18, 1979, gage height, 6.62 ft (2.018 m), from rating curve extended above 350 ft^3/s (9.91 m^3/s) on basis of slope-area measurements at gage heights, 3.44 ft (1.049 m), 3.68 ft (1.122 m) and 5.32 ft (1.622 m); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s (2.8 m^3/s) and maximum (*):

Date	Time	Dicharge (ft^3/s)	Dicharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
July 1	unknown	*395	11.2	3.52	1.073	July 16	0545	186	5.27	2.61	0.800
July 9	0100	174	4.93	2.56	0.780	Aug. 8	0715	210	5.95	2.71	0.826
July 12	1400	177	5.01	2.57	0.783	Sept.18	1115	230	6.51	2.79	0.850
July 13	2245	342	9.69	3.28	1.000						

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.08	.00	.00	87	.00	.00
2	.00	.00	.00	.00	.00	.03	.00	.00	.00	6.4	.00	.00
3	.00	.00	.00	.00	.00	.96	.00	.00	.30	.54	.00	.00
4	.00	.00	.00	.00	.00	1.4	.00	.00	.04	.00	.00	.00
5	.00	.00	.00	.00	.00	.43	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.4
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	9.1
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	35	2.9
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	20	7.3	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.0	16	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.8	.21	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	36	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	44	.00	.00
14	.00	.00	.00	.00	.00	.16	.00	.00	.00	27	.00	.00
15	.00	.00	.00	.00	.00	2.3	.74	.00	.00	5.1	.00	.00
16	.00	.00	.00	.00	.00	1.3	.00	.00	.00	37	.00	.00
17	.00	.00	.00	.00	.00	2.2	.00	.00	.00	.00	.00	7.4
18	.00	.00	.00	.00	.00	1.0	.00	.00	.00	.00	.00	85
19	.00	.00	.00	.00	.00	.36	.00	.00	.00	.00	.00	12
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.4	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.89	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.05	.00	1.3	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.25	.00	4.6	6.0	.00	.00	.00
31	.00	---	.00	.00	---	.44	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	10.88	.82	5.90	6.34	274.27	58.51	122.80
MEAN	.000	.000	.000	.000	.000	.35	.027	.19	.21	8.85	1.89	4.09
MAX	.00	.00	.00	.00	.00	2.3	.74	4.6	6.0	87	35	85
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	22	1.6	12	13	544	116	244

CAL YR 1980 TOTAL 211.56 MEAN .58 MAX 33 MIN .00 AC-FT 420
WTR YR 1981 TOTAL 479.52 MEAN 1.31 MAX 87 MIN .00 AC-FT 951

PERIOD OF RECORD.--Water years 1976 to current year.
REMARKS.--Under the heading SAMPLE SOURCE numerical values are used to indicate method of sampling; 29 indicates dip or grab sample and 40 indicates single-stage sample.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
JUN											
30...	1015	4.0	290	8.0	16.0	22	7.2	1.0	57	5.3	2.9
JUL											
01...	0930	4.6	325	8.4	19.0	12	4.0	.5	60	7.5	2.1
SEP											
12...	0600	72	--	--	--	--	--	--	--	--	--
18...	0400	72	--	--	--	--	--	--	--	--	--

DATE	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SAMPLE SOURCE (72005)
JUN											
30...	--	200	7.3	1.0	7.1	194	--	190	100	10	--
JUL											
01...	--	140	28	.8	11	--	1.00	180	110	0	--
SEP											
12...	0	--	--	--	--	--	--	--	--	--	40.00
18...	0	--	--	--	--	--	--	--	--	--	40.00

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)
JUN												
30...	1015	--	3500	0	20	190	1	170	280	260000	100	170
JUL												
01...	0930	12	--	--	10	180	1	100	210	160000	110	140
SEP												
12...	0600	--	--	--	--	--	--	--	--	320000	--	--
18...	0400	--	--	--	--	--	--	--	--	350000	--	--

DATE	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	SAMPLE SOURCE (72005)
JUN											
30...	280	10	520	10	5.5	110	10	500	150	1000	--
JUL											
01...	--	--	2500	0	.8	71	0	--	--	670	--
SEP											
12...	--	--	13000	--	--	--	--	--	--	--	40.00
18...	--	--	8000	--	--	--	--	--	--	--	40.00

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
JUN						
30...	1015	4.0	16.0	18100	99	--
JUL						
01...	0930	4.6	19.0	14800	100	--
13...	1235	1.0	26.0	50800	100	--
SEP						
12...	0600	72	--	147000	99	40.00
18...	0400	72	--	26500	100	40.00

09367682 GALLO WASH AT CHACO CANYON NATIONAL MONUMENT, NM

LOCATION.--Lat 36°02'06", long 107°53'25", in SE¼NW¼SW¼ sec.22, T.21 N., R.10W., San Juan County, Hydrologic Unit 14080106, in Chaco Canyon National Monument on left bank, 1.1 mi (1.8 km) northeast of Chaco Canyon National Mounument Visitors Center, and 3.2 mi (5.1 km) upstream from mouth.

DRAINAGE AREA.--36.2 mi^2 (93.8 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 6,220 ft (1,896 m), from topographic map.

REMARKS.--Water-discharge records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 254 ft^3/s (7.19 m^3/s) Jan. 18, 1979, gage height, 3.30 ft (1.006 m), from rating curve extended above 15 ft^3/s (0.42 m^3/s) on basis of slope-area measurement of peak flow; no flow most of time.

EXTREMES FOR CURRENT YEAR.--No flow during the water year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1980	TOTAL 0.00	MEAN .000	MAX .00	MIN .00	AC-FT .00
WTR YR 1981	TOTAL 0.00	MEAN .000	MAX .00	MIN .00	AC-FT .00

09367683 CHACO WASH AT PUEBLO BONITO BRIDGE AT CHACO CANYON NATIONAL MONUMENT, NM

LOCATION.--Lat 36°03'15", long 107°57'52", in NE¼NW¼ sec.13, T.21N., R.11W., San Juan County, Hydrologic Unit 14080106, in Chaco Canyon National Monument, on downstream side of center brige pier, 800 ft (244 m) south of Pueblo Bonito Ruins, 2.3 mi (3.7 km) downstream from Gallo Wash, and 3.6 mi (5.8 km) northwest of Chaco Canyon National Monument Visitors Center.

DRAINAGE AREA.--619 mi^2 (1,603 km^2)

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--March 1980 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,090 ft (1,856.2 m) from topographic map.

REMARKS.--Water-discharge records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 339 ft^3/s (9.60 m^3/s) June 30, 1981, gage height, 4.92 ft (1.500 m), from rating curve extended above 5.0 ft^3/s (0.14 m^3/s) on basis of slope-area measurement of peak flow; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period March to September 1980, 1.5 ft^3/s (0.042 $^3/s$) Sept. 9, gage height, 1.75 ft (0.533 m); no flow most of time.

1981 water year: Maximum discharge, 339 ft^3/s (9.60 m^3/s) June 30, gage height, 4.92 ft (1.500 m), from rating curve extended above 5.0 ft^3/s (0.14 m^3/s) on basis of slope-area measurement of peak flow; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, APRIL 1980 TO SEPTEMBER 1981

September 9, 1980	0.46	July 1, 1981	5.6	July 26, 1981	1.6
September 10, 1980	0.02	July 2, 1981	3.6	July 27, 1981	0.63
March 16, 1981	0.23	July 3, 1981	0.66	August 8, 1981	20
March 17, 1981	0.61	July 4, 1981	0.24	August 9, 1981	3.4
March 18, 1981	0.29	July 9, 1981	9.1	August 10, 1981	8.0
March 19, 1981	0.16	July 10, 1981	1.8	September 6, 1981	2.0
April 1, 1981	0.07	July 11, 1981	1.4	September 7, 1981	3.4
April 2, 1981	0.02	July 12, 1981	19	September 8, 1981	1.2
May 30, 1981	1.6	July 13, 1981	24	September 17, 1981	2.1
May 31, 1981	0.05	July 14, 1981	35	September 18, 1981	32
June 30, 1981	49	July 15, 1981	6.4	September 19, 1981	3.3
		July 16, 1981	25	September 20, 1981	0.57

Month	cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
September 1980	0.48	0.46	0	0.016	1.0
March 1981	1.29	0.61	0	0.042	2.6
April 1981	0.09	0.07	0	0.003	0.2
May 1981	1.65	1.6	0	0.053	3.3
June 1981	49.00	49	0	1.63	97
July 1981	134.03	35	0	4.32	266
August 1981	31.40	20	0	1.01	62
September 1981	44.57	32	0	1.49	88
WTR YR 1981	262.03	49	0	0.72	520

NOTE: Flow occurred only on days listed above.

09367683 CHACO WASH NEAR PUEBLO BONITO AT CHACO NATIONAL MONUMENT, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June to September 1981.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)
JUN										
30...	0955	49	260	8.0	16.0	21	6.7	.9	52	5.0
JUL										
01...	0900	4.1	350	8.2	19.0	23	7.7	.9	64	5.8

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
JUN									
30...	2.5	26	6.6	.9	7.5	181	240	60	0
JUL									
01...	3.1	7.7	5.2	.7	6.2	203	180	110	0

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
JUN											
30...	0955	40	4000	100	20	240	3	200	280	250000	60
JUL											
01...	0900	20	2000	0	20	180	1	160	310	230000	110

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)
JUN											
30...	200	320	10	6900	0	2.4	130	3	780	160	1000
JUL											
01...	130	230	10	3900	0	4.4	90	5	260	160	1000

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)
JUL									
01...	0900	4.1	19.0	13500	99	--	--	--	--
06...	1200	--	--	--	--	33	70	98	100

09367685 AH-SHI-SLE-PAH WASH NEAR KIMBETO, NM

LOCATION (REVISED).--Lat 36°09'13", long 107°56'47", in NW¼SW¼ sec.7, T.22 N., R.10 W., San Juan County, Hydrologic Unit 14080106, on right bank 6.0 mi (9.7 km) west of Kimbeto, and 6.0 mi (9.7 km) upstream from mouth.

DRAINAGE AREA.--8.2 mi^2 (21.2 km^2).

WATER-DISCHARGE RECORD

PERIOD OF RECORD.--March 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,180 ft (1,884 m) from topographic map.

REMARKS.--Water-discharge records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,170 ft^3/s (33.1 m^3/s) July 20, 1977, gage height, 4.46 ft (1.359 m), from rating curve extended above 6.0 ft^3/s (0.17 m^3/s) on basis of step-back water analysis; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 310 ft^3/s (8.78 m^3/s) at 1715 hours Aug. 30, gage height, 2.05 ft (0.625 m), no other peak above base of 300 ft^3/s (8.5 m^3/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	30	.00	.00
2	.00	.00	.00	.00	.00	5.5	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	19	.00	.00	4.9	.00	.00	.00
4	.00	.00	.00	.00	.00	.31	.00	.00	.01	.00	.00	.00
5	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	4.3
6	.00	.00	3.7	.00	.00	.00	.00	.00	.00	.00	.00	.10
7	.00	.00	18	.00	.00	.00	.00	.00	.00	.00	.62	9.2
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.29	.20
9	.00	.00	.00	.00	.60	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	2.1	6.9	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	9.0	14	.00	.00	.00	.28	.00	.00
12	.00	.00	.00	.00	2.4	.81	.00	.00	.00	.92	.00	.00
13	.00	.00	.00	.00	1.4	.41	.00	.00	.00	.98	.00	.00
14	.00	.00	.00	.00	1.0	3.3	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.40	55	14	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.15	34	.20	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.06	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.1	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.1	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.00
27	10	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.1	.00
28	14	.00	.00	.00	.00	2.2	.00	.00	.00	.00	.20	.00
29	.00	.00	.00	.00	---	17	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.10	.00	.00	2.0	.00	27	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	24.00	.00	21.70	.00	17.05	158.61	14.20	.00	6.91	35.28	30.31	13.80
MEAN	.77	.000	.70	.000	.61	5.12	.47	.000	.23	1.14	.98	.46
MAX	14	.00	18	.00	9.0	55	14	.00	4.9	30	27	9.2
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	48	.00	43	.00	34	315	28	.00	14	70	60	27
(††)	0.63	0.30	0.81	0.09	0.44	1.83	0.83	0.37	0.65	0.50	0.31	0.80

CAL YR 1980 TOTAL 229.92 MEAN .63 MAX 31 MIN .00 AC-FT 456
WTR YR 1981 TOTAL 321.86 MEAN .88 MAX 55 MIN .00 AC-FT 638

(††) RAINFALL, IN INCHES

PERIOD OF RECORD.--Water years 1977 to current year.
REMARKS.--Under the heading SAMPLE SOURCE numerical values are used to indicate method of sampling; 26 indicates method of sampling; 26 indicates by automatic pump and 40 indicates single-stage sample.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
MAR										
15...	1420	E130	540	7.3	--	--	--	--	--	--
15...	1425	E130	500	7.9	--	--	--	--	--	--
15...	1430	E130	450	7.6	--	--	--	--	--	--
15...	1435	E130	500	7.8	--	--	--	--	--	--
16...	1000	.45	800	8.4	3.0	.5	47	17	1.0	130
APR										
15...	1900	E130	490	7.3	--	--	--	--	--	--
15...	1905	E130	600	7.0	--	--	--	--	--	--
15...	1910	E130	680	7.6	--	--	--	--	--	--
15...	1915	E130	590	7.3	--	--	--	--	--	--
SEP										
30...	1030	E140	910	6.6	--	--	--	--	--	--
30...	1045	E140	2020	7.2	--	--	--	--	--	--
30...	1050	E140	830	7.0	--	--	--	--	--	--
30...	1055	E140	2200	7.2	--	--	--	--	--	--
30...	1100	E140	650	7.5	--	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
MAR									
15...	--	--	--	180	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
16...	8.3	3.1	--	--	--	240	23	.6	17
APR									
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	140	--	--	--	--	--
15...	--	--	--	170	--	--	--	--	--
15...	--	--	--	170	--	--	--	--	--
SEP									
30...	--	--	240	0	197	--	--	--	--
30...	--	--	280	0	230	--	--	--	--
30...	--	--	290	0	238	--	--	--	--
30...	--	--	260	0	213	--	--	--	--
30...	--	--	280	0	230	--	--	--	--

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
MAR									
15...	--	--	--	--	--	750	10	--	40.00
15...	--	--	--	--	--	410	10	--	40.00
15...	--	--	--	--	--	510	10	--	40.00
15...	--	--	--	--	--	1900	70	--	40.00
16...	6.5	.200	1.1	2.20	210	2600	10	24	29.00
APR									
15...	--	--	--	--	--	2500	30	--	40.00
15...	--	--	--	--	--	--	--	--	40.00
15...	--	--	--	--	--	470	30	--	40.00
15...	--	--	--	--	--	390	80	--	40.00
SEP									
30...	--	--	--	--	--	--	--	--	40.00
30...	--	--	--	--	--	--	--	--	40.00
30...	--	--	--	--	--	--	--	--	40.00
30...	--	--	--	--	--	--	--	--	40.00
30...	--	--	--	--	--	--	--	--	40.00

09367685 AH-SHI-SLE-PAH WASH NEAR KIMBETO, NM--Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
MAR											
15...	1420	--	--	--	--	--	--	--	--	--	--
15...	1425	--	--	--	--	--	--	--	--	--	--
15...	1430	--	--	--	--	--	--	--	--	--	--
15...	1435	--	--	--	--	--	--	--	--	--	--
16...	1000	5	3	800	0	20	0	210	1	1	70
APR											
15...	1900	--	--	--	--	--	--	--	--	--	--
15...	1905	--	--	--	--	--	--	--	--	--	--
15...	1910	--	--	--	--	--	--	--	--	--	--
15...	1915	--	--	--	--	--	--	--	--	--	--
SEP											
30...	1030	--	--	--	--	--	--	--	--	--	--
30...	1045	--	--	--	--	--	--	--	--	--	--
30...	1050	--	--	--	--	--	--	--	--	--	--
30...	1055	--	--	--	--	--	--	--	--	--	--
30...	1100	--	--	--	--	--	--	--	--	--	--

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
MAR											
15...	--	--	--	270000	750	--	--	--	--	400	10
15...	--	--	--	190000	410	--	--	--	--	450	10
15...	--	--	--	230000	510	--	--	--	--	620	10
15...	--	--	--	260000	1900	--	--	--	--	680	70
16...	20	340	10	200000	2600	200	1	130	20	2100	10
APR											
15...	--	--	--	280000	2500	--	--	--	--	8700	30
15...	--	--	--	320000	--	--	--	--	--	860	--
15...	--	--	--	320000	470	--	--	--	--	890	30
15...	--	--	--	210000	390	--	--	--	--	6700	80
SEP											
30...	--	--	--	470000	--	--	--	--	--	13000	--
30...	--	--	--	400000	--	--	--	--	--	11000	--
30...	--	--	--	630000	--	--	--	--	--	29000	--
30...	--	--	--	350000	--	--	--	--	--	9900	--
30...	--	--	--	400000	--	--	--	--	--	11000	--

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
MAR											
15...	--	--	--	--	--	--	--	--	--	--	40.00
15...	--	--	--	--	--	--	--	--	--	--	40.00
15...	--	--	--	--	--	--	--	--	--	--	40.00
15...	--	--	--	--	--	--	--	--	--	--	40.00
16...	.9	.6	84	4	9	5	2500	100	1000	70	29.00
APR											
15...	--	--	--	--	--	--	--	--	--	--	40.00
15...	--	--	--	--	--	--	--	--	--	--	40.00
15...	--	--	--	--	--	--	--	--	--	--	40.00
15...	--	--	--	--	--	--	--	--	--	--	40.00
SEP											
30...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	40.00
30...	--	--	--	--	--	--	--	--	--	--	40.00
30...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--

09367685 AH-SHI-SLE-PAH WASH NEAR KIMBETO, NM--Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
MAR												
15...	1420	E130	--	20800	--	--	--	--	--	--	95	40.00
15...	1425	E130	--	32800	--	--	--	--	--	--	68	40.00
15...	1430	E130	--	24300	--	--	--	--	--	--	98	40.00
15...	1435	E130	--	22500	--	--	--	--	--	--	87	40.00
16...	1000	.45	.5	19600	--	--	--	--	--	--	100	29.00
APR												
15...	1900	E130	--	39700	--	--	--	--	--	--	93	40.00
15...	1905	E130	--	31700	--	--	--	--	--	--	90	40.00
15...	1910	E130	--	38900	--	--	--	--	--	--	84	40.00
15...	1915	E130	--	22300	--	--	--	--	--	--	92	40.00
SEP												
30...	1045	E140	--	37600	57	69	82	98	100	--	--	40.00
30...	1050	E140	--	98500	40	46	56	84	96	100	--	40.00

09367710 DE-NA-ZIN WASH NEAR BISTI TRADING POST, NM

LOCATION.--Lat 36°13'51", long 108°11'57", in NE¼NW¼ sec. 14, T.23 N., R.13 W., San Juan County, Hydrologic Unit 14080106, on right bank 400 ft (122 m) upstream from county road, 0.8 mi (1.3 km) downstream from Alamo Wash, 4.5 mi (7.2 km) southeast of Bisti Trading Post, and at mile 7.3 (11.7 km).

DRAINAGE AREA.--184 mi^2 (477 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1975 to current year.

REVISED RECORDS.--WDR NM-79-1: 1978(P).

GAGE.--Water-stage recorder. Altitude of gage is 5,840 ft (1,780 m), from topographic map.

REMARKS.--Water-discharge records poor.

AVERAGE DISCHARGE.--5 years, 5.05 ft^3/s (0.143 m^3/s), 3,660 acre-ft/yr (4.51 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,010 ft^3/s (56.9 m^3/s), May 7, 1978, gage height, 3.20 ft 0.975 m); maximum gage height, 4.10 ft (1.250 m) Aug. 16, 1979; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft^3/s (9.9 m^3/s), revised, and maximum (*).

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 15	1730	563	15.9	2.96	0.902	July 10	1700	*1,420	40.2	3.52	1.073
July 1	1530	605	17.1	3.00	0.914	July 17	2345	1,220	34.6	3.42	1.042

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.13	.00	2.0	201	12	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.07	10	.04	.00
3	.00	.00	.00	.00	.00	11	.00	.00	19	.00	.00	.00
4	.00	.00	.00	.00	.00	8.1	.00	.00	9.6	.00	.00	7.5
5	.00	.00	.00	.00	.00	.39	.00	.00	.13	.00	.00	51
6	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	26
7	.00	.00	.43	.00	.00	.00	.00	.00	.00	.00	.00	5.7
8	.00	.00	.84	.00	.00	.05	.00	.00	.00	13	.00	2.2
9	.00	.00	.57	.00	.00	.15	.00	.00	.00	.00	.00	.07
10	.00	.00	.00	.00	.00	.21	.00	.00	.00	164	.00	.00
11	.00	.00	.00	.00	.00	21	.00	.00	.00	12	.00	.00
12	.00	.00	.00	.00	.00	8.3	.00	.00	.00	.02	.00	.00
13	.00	.00	.00	.00	.00	1.0	.00	.00	.00	13	.00	.00
14	.00	.00	.00	.00	.00	6.9	.00	.00	.00	4.1	.00	.00
15	.00	.00	.00	.00	.06	101	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	11	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.54	.00	7.8	.00	65	.00	.00
18	.00	.00	.00	.00	.08	.00	6.1	.50	.00	58	.00	20
19	.00	.00	.00	.00	.00	.00	6.6	.00	.00	.00	.00	.11
20	.00	.00	.00	.00	.00	.00	.31	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.0	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.23	18
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	21
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.48
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.0	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00
28	3.3	.00	.00	.00	.00	3.2	.00	.00	.00	.00	26	.00
29	.55	.00	.00	.00	---	29	.00	.00	.00	.00	.52	.00
30	.03	.00	.00	.00	---	17	.00	9.2	18	.00	.64	.00
31	.01	---	.00	.00	---	1.9	---	.18	---	4.6	.19	---
TOTAL	3.89	.00	1.84	.00	.14	220.76	13.14	17.68	48.80	546.75	45.62	152.06
MEAN	.13	.000	.059	.000	.005	7.12	.44	.57	1.63	17.6	1.47	5.07
MAX	3.3	.00	.84	.00	.08	101	6.6	9.2	19	201	26	51
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	7.7	.00	3.6	.00	.3	438	26	35	97	1080	90	302

CAL YR 1980 TOTAL 1030.91 MEAN 2.82 MAX 94 MIN .00 AC-FT 2040
WTR YR 1981 TOTAL 1050.68 MEAN 2.88 MAX 201 MIN .00 AC-FT 2080

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

REMARKS.--Under the heading SAMPLE SOURCE numerical values are used to indicate sampling method; 29 indicates dip or grab sample and 40 indicates single-stage sample.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
MAR										
11...	1145	24	733	8.4	9.5	9.0	9.2	9	0	3.0
JUL										
08...	1315	.45	546	8.1	29.0	33.0	5.6	13	0	4.4
10...	1700	E1420	1050	7.5	--	--	--	--	--	--
13...	1215	7.5	488	8.4	27.0	26.0	--	13	0	4.7

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3) (99430)
MAR									
11...	.3	140	21	1.7	160	22	160	--	--
JUL									
08...	.5	120	14	3.8	200	0	160	--	--
10...	--	--	--	--	--	--	--	290	240
13...	.3	110	13	2.6	180	1	150	--	--

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)
MAR									
11...	170	7.2	1.0	13	463	555	--	4.5	1.40
JUL									
08...	100	5.7	1.0	16	399	350	--	3.0	--
10...	--	--	--	--	--	--	--	--	--
13...	80	7.7	.9	13	340	310	1.6	1.1	.080

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
MAR									
11...	28	--	2.30	280	360	10	8.9	50	--
JUL									
08...	--	--	1.90	2000	460	10	14	10	--
10...	--	--	--	--	--	--	--	--	40.00
13...	8.3	10	2.10	260	170	0	11	22	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
MAR											
11...	1145	--	--	--	--	--	--	280	--	--	--
JUL											
08...	1315	45	7	1700	0	20	0	2000	1	4	70
13...	1215	45	4	2000	100	20	0	260	1	0	20
AUG											
10...	1700	--	--	--	--	--	--	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI) (01132)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
MAR											
11...	--	--	--	260000	360	--	--	--	--	8000	10
JUL											
08...	10	300	45	130000	460	180	1	100	10	1900	10
13...	0	500	18	210000	170	120	0	170	10	3400	0
AUG											
10...	--	--	--	460000	--	--	--	--	--	18000	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR) (01082)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
MAR											
11...	--	--	--	--	--	--	--	--	--	--	--
JUL											
08...	.5	.5	69	9	10	4	2100	90	650	100	--
13...	.9	.2	45	2	3	2	390	130	920	20	--
AUG											
10...	--	--	--	--	--	--	--	--	--	--	40.00

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
DEC											
08...	1120	.01	3.0	12000	--	--	--	--	--	--	--
MAR											
11...	1145	24	9.0	52000	--	--	--	--	--	--	--
JUL											
08...	1315	.45	33.0	14500	--	--	--	--	--	--	100
10...	1700	E1420	--	86500	56	71	82	96	99	100	--
13...	1215	7.5	26.0	16500	--	--	--	--	--	--	100

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	SAMPLE SOURCE (72005)
DEC										
08...	--	--	--	--	--	--	--	--	--	--
MAR										
11...	--	--	--	--	--	--	--	--	--	--
JUL										
08...	1	1	14	79	--	97	99	99	100	--
10...	--	--	--	--	--	--	--	--	--	40.00
13...	1	1	19	78	100	--	--	--	--	--

09367900 BLACK SPRINGS WASH NEAR MEXICAN SPRINGS, NM

LOCATION.--Lat 35°45'40", long 108°49'00", McKinley County, Hydrologic Unit 14080106, in Navajo Indian Reservation, on left bank 0.9 mi (1.4 km) upstream from Figueredo Wash, 2.5 mi (4.0 km) south of Mexican Springs and 17 mi (27.4 km) north of Gallup.

DRAINAGE AREA.--7.05 mi^2 (18.3 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Water years 1953-78 (annual maximum only), April 1979 to current year.

GAGE.--Water-stage recorder with rock and concrete artificial control. Altitude of gage is 6,300 ft (1,902.2 m) from topographic map. Prior to April 12, 1979 at datum 2.01 ft (0.613 m) higher.

REMARKS.--Water-discharge records fair. Recording rain gage at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,200 ft^3/s (62.3 m^3/s) Aug. 18, 1955, gage height, 4.77 ft (1.454 m); Maximum gage height, 4.89 ft (1.490 m) July 14, 1981; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s (2.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
July 14	2130	*1790	50.7	4.89	1.490	Sept. 24	1410	100	2.83	1.440	439

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.2	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.0	.00	1.0
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.0	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.0	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.0	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	115	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	17	.35	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.5	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.0	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.0
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	151.70	3.85	5.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	4.89	.12	.17
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	115	2.0	4.0
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	301	7.6	9.9
(††)	0.13	0.49	0.59	0.12	0.44	0.76	0.21	0.58	0.31	2.53	0.83	0.65

CAL YR 1980 TOTAL 50.58 MEAN .14 MAX 16 MIN .00 AC-FT 100
WTR YR 1981 TOTAL 160.55 MEAN .44 MAX 115 MIN .00 AC-FT 318

(††) RAINFALL, IN INCHES

09367900 BLACK SPRINGS WASH NEAR MEXICAN SPRINGS, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July to September 1981.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)
JUL					
16...	0915	235	567	7.2	300
16...	0900	42	590	6.9	310

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)
JUL			
16...	0900	1100000	31000

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JUL				
16...	0900	42	138000	61
16...	0915	235	149000	50

09367930 HUNTER WASH AT BISTI TRADING POST, NM

LOCATION.--Lat 36°16'37", long 108°15'12", in NW¼NW¼ sec.32, T.24 N., R.13 W., San Juan County, Hydrologic Unit 14080106, on right bank 150 ft (46 m) upstream from road crossing at Bisti Trading Post, and 35 mi (56 km) south of Farmington.

DRAINAGE AREA.--45.6 mi^2 (118 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,770 ft (1,759 m), from topographic map.

REMARKS.--Water-discharge records fair.

AVERAGE DISCHARGE.--6 years, 0.78 ft^3/s (0.022 m^3/s), 565 acre-ft/yr (696,600 m^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,570 ft^3/s (44.5 m^3/s) Aug. 19, 1976, gage height, 6.22 ft (1.896 m), from rating curve extended above 60 ft^3/s (1.70 m^3/s) on basis of slope-area measurement of peak flow; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s (2.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 15	1730	130	3.68	2.58	0.786	July 15	1830	426	12.1	3.54	1.079
May 29	1545	100	2.83	2.46	0.750	July 17	2030	778	22.0	4.42	1.347
May 31	2045	199	5.64	2.83	0.863	Aug. 17	1845	110	3.12	2.50	0.762
June 3	1530	322	9.12	3.24	0.988	Sept. 4	1630	*810	22.9	4.50	1.372
June 30	2200	132	3.74	2.59	0.789	Sept. 5	1445	442	12.5	3.58	1.091
July 1	1430	214	6.06	2.88	0.878	Sept. 23	2230	482	13.7	3.68	1.122

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.93	36	3.3	.00
2	.00	.00	.00	.00	.00	.09	.00	.00	.00	.10	.00	.00
3	.00	.00	.00	.00	.00	.08	.00	.00	16	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	1.2	.00	.00	32
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	37
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	10
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.22	.00	2.0
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.41
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.27	.00	.00	.00	1.0	.00	.00
11	.00	.00	.00	.00	.00	.34	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.41	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.12	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	1.4	.00	.00	.00	2.3	.00	.00
15	.00	.00	.00	.00	.00	23	.00	.00	.00	19	.00	.00
16	.00	.00	.00	.00	.00	.92	.00	1.6	.00	4.7	.32	.00
17	.00	.00	.00	.00	.00	.00	.00	.38	.00	45	4.0	.00
18	.00	.00	.00	.00	.00	.00	.34	.00	.00	2.4	.33	.00
19	.00	.00	.00	.00	.00	.00	.24	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.82	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	10	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	29
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.1
25	.00	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.70	.00	.00
27	.16	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00
28	.00	.00	.00	.00	.00	1.8	.00	.00	.00	.00	1.6	.00
29	.00	.00	.00	.00	---	.62	.00	2.8	.00	.00	1.1	.00
30	.00	.00	.00	.00	---	.00	.00	.01	6.3	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	15	---	.00	.00	---
TOTAL	.16	.04	.00	.00	.00	29.05	.58	19.79	24.43	112.43	21.54	114.51
MEAN	.005	.001	.000	.000	.000	.94	.019	.64	.81	3.63	.69	3.82
MAX	.16	.04	.00	.00	.00	23	.34	15	16	45	10	37
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.3	.08	.00	.00	.00	58	1.2	39	48	223	43	227

CAL YR 1980 TOTAL 89.27 MEAN .24 MAX 12 MIN .00 AC-FT 177
WTR YR 1981 TOTAL 322.53 MEAN .88 MAX 45 MIN .00 AC-FT 640

09367930 HUNTER WASH AT BISTI TRADING POST, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD--Water years 1975 to current year.

REMARKS.--Under the heading SAMPLE SOURCE numerical values are used to indicate sampling method; 29 indicates dip or grab sample and 40 indicates single-stage sample.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
MAR												
11...	1015	.04	888	8.5	8.0	5.0	10.2	15	0	5.4	.4	170
MAY												
31...	2030	E196	945	7.4	--	--	--	--	--	--	--	--
JUN												
03...	1520	E178	1950	7.2	--	--	--	--	--	--	--	--
JUL												
15...	1815	E178	522	7.9	--	--	--	--	--	--	--	--
15...	1825	E295	527	7.9	--	--	--	--	--	--	--	--
17...	1950	E178	558	7.6	--	--	--	--	--	--	--	--
17...	1955	E295	469	7.5	--	--	--	--	--	--	--	--
17...	2020	E802	980	7.5	--	--	--	--	--	--	--	--
AUG												
17...	1850	E145	1060	7.7	--	--	--	--	--	--	--	--
SEP												
04...	1610	E178	1440	7.8	--	--	--	--	--	--	--	--
04...	1615	E295	1520	7.9	--	--	--	--	--	--	--	--
04...	1625	E822	1290	7.8	--	--	--	--	--	--	--	--
23...	2145	E178	1190	7.5	--	--	--	--	--	--	--	--
23...	2200	E295	1080	6.8	--	--	--	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
MAR											
11...	19	2.7	190	5	160	--	250	14	.7	16	537
MAY											
31...	--	--	280	0	230	230	--	--	--	--	--
JUN											
03...	--	--	440	0	360	--	--	--	--	--	--
JUL											
15...	--	--	110	0	91	--	--	--	--	--	--
15...	--	--	220	0	180	--	--	--	--	--	--
17...	--	--	200	0	170	--	--	--	--	--	--
17...	--	--	180	0	150	--	--	--	--	--	--
17...	--	--	260	0	220	--	--	--	--	--	--
AUG											
17...	--	--	530	0	430	--	--	--	--	--	--
SEP											
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	280	0	230	--	--	--	--	--	--
04...	--	--	210	0	170	--	--	--	--	--	--
23...	--	--	200	0	164	--	--	--	--	--	--
23...	--	--	130	0	107	--	--	--	--	--	--

SAN JUAN RIVER BASIN
09367930 HUNTER WASH AT BISTI TRADING POST, NM -- Continued
WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
MAR											
11...	558	7.5	.770	.23	2.10	2100	270	10	10	45	--
MAY											
31...	--	--	--	--	--	--	--	--	--	--	40.00
JUN											
03...	--	--	--	--	--	--	--	--	--	--	40.00
JUL											
15...	--	--	--	--	--	--	--	--	--	--	40.00
15...	--	--	--	--	--	--	--	--	--	--	40.00
17...	--	--	--	--	--	--	--	--	--	--	40.00
17...	--	--	--	--	--	--	--	--	--	--	40.00
17...	--	--	--	--	--	--	--	--	--	--	40.00
AUG											
17...	--	--	--	--	--	--	--	--	--	--	40.00
SEP											
04...	--	--	--	--	--	--	--	--	--	--	40.00
04...	--	--	--	--	--	--	--	--	--	--	40.00
04...	--	--	--	--	--	--	--	--	--	--	40.00
23...	--	--	--	--	--	--	--	--	--	--	40.00
23...	--	--	--	--	--	--	--	--	--	--	40.00

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
MAR											
11...	1015	10	3	1300	0	10	0	2100	2	1	60
MAY											
31...	2030	--	--	--	--	--	--	--	--	--	--
JUN											
03...	1520	--	--	--	--	--	--	--	--	--	--
JUL											
15...	1815	--	--	--	--	--	--	--	--	--	--
15...	1825	--	--	--	--	--	--	--	--	--	--
17...	1950	--	--	--	--	--	--	--	--	--	--
17...	1955	--	--	--	--	--	--	--	--	--	--
17...	2020	--	--	--	--	--	--	--	--	--	--
AUG											
17...	1850	--	--	--	--	--	--	--	--	--	--
SEP											
04...	1610	--	--	--	--	--	--	--	--	--	--
04...	1615	--	--	--	--	--	--	--	--	--	--
04...	1625	--	--	--	--	--	--	--	--	--	--
23...	2145	--	--	--	--	--	--	--	--	--	--
23...	2200	--	--	--	--	--	--	--	--	--	--

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
MAR											
11...	0	330	20	61000	270	170	1	120	10	2900	10
MAY											
31...	--	--	--	390000	--	--	--	--	--	13000	--
JUN											
03...	--	--	--	330000	--	--	--	--	--	29000	--
JUL											
15...	--	--	--	400000	--	--	--	--	--	16000	--
15...	--	--	--	480000	--	--	--	--	--	13000	--
17...	--	--	--	350000	--	--	--	--	--	17000	--
17...	--	--	--	340000	--	--	--	--	--	14000	--
17...	--	--	--	450000	--	--	--	--	--	19000	--
AUG											
17...	--	--	--	470000	--	--	--	--	--	18000	--
SEP											
04...	--	--	--	620000	--	--	--	--	--	53000	--
04...	--	--	--	1500000	--	--	--	--	--	57000	--
04...	--	--	--	730000	--	--	--	--	--	45000	--
23...	--	--	--	570000	--	--	--	--	--	31000	--
23...	--	--	--	590000	--	--	--	--	--	23000	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
MAR											
11...	1.0	.0	74	2	5	4	1700	120	1200	50	--
MAY											
31...	--	--	--	--	--	--	--	--	--	--	40.00
JUN											
03...	--	--	--	--	--	--	--	--	--	--	40.00
JUL											
15...	--	--	--	--	--	--	--	--	--	--	40.00
15...	--	--	--	--	--	--	--	--	--	--	40.00
17...	--	--	--	--	--	--	--	--	--	--	40.00
17...	--	--	--	--	--	--	--	--	--	--	40.00
17...	--	--	--	--	--	--	--	--	--	--	40.00
AUG											
17...	--	--	--	--	--	--	--	--	--	--	40.00
SEP											
04...	--	--	--	--	--	--	--	--	--	--	40.00
04...	--	--	--	--	--	--	--	--	--	--	40.00
04...	--	--	--	--	--	--	--	--	--	--	40.00
23...	--	--	--	--	--	--	--	--	--	--	40.00
23...	--	--	--	--	--	--	--	--	--	--	--

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)
MAR									
11...	1015	.04	5.0	19100	--	--	--	--	--
MAY									
31...	2030	E196	--	78200	--	--	--	--	--
JUN									
03...	1520	E178	--	280000	--	--	--	--	--
03...	1525	E295	--	148000	--	--	--	--	--
JUL									
15...	1815	E178	--	49900	--	--	--	--	--
15...	1825	E295	--	41400	--	--	--	--	--
17...	1950	E178	--	46800	--	--	--	--	--
17...	1955	E295	--	42200	--	--	--	--	--
17...	2020	E802	--	84300	--	--	--	--	--
AUG									
17...	1850	E145	--	75800	65	69	87	99	100
SEP									
04...	1610	E178	--	212000	--	--	--	--	--
04...	1615	E295	--	211000	--	--	--	--	--
04...	1625	E822	--	152000	--	--	--	--	--
23...	2145	E178	--	119000	50	56	66	91	99

DATE	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	SAMPLE SOURCE (72005)
MAR								
11...	--	100	5	11	43	91	100	--
MAY								
31...	--	--	--	--	--	--	--	40.00
JUN								
03...	--	--	--	--	--	--	--	40.00
03...	--	--	--	--	--	--	--	40.00
JUL								
15...	--	81	--	--	--	--	--	40.00
15...	--	98	--	--	--	--	--	40.00
17...	--	76	--	--	--	--	--	40.00
17...	--	91	--	--	--	--	--	40.00
17...	--	84	--	--	--	--	--	40.00
AUG								
17...	--	--	--	--	--	--	--	40.00
SEP								
04...	--	--	--	--	--	--	--	40.00
04...	--	78	--	--	--	--	--	40.00
04...	--	88	--	--	--	--	--	40.00
23...	100	--	--	--	--	--	--	40.00

09367934 TEEC-NI-DI-TSO WASH NEAR BURNHAM TRADING POST, NM

LOCATION.--Lat 36°18'26", long 108°27'22", San Juan County, Hydrologic Unit 14080106, in Navajo Indian Reservation, on right bank 4.9 mi (7.9 km) southeast of Burnham Trading Post, and 6.5 mi (10.5 km) upstream from mouth.

DRAINAGE AREA.--7.2 mi^2 (18.6 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,500 ft (1,676 m), from topographic map.

REMARKS.--Water-discharge records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 268 ft^3/s (7.59 m^3/s), Sept. 24, 1978, gage height, 3.07 ft (0.936 m), on basis of step-backwater analysis; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31 ft^3/s (0.878 m^3/s) Mar. 15, gage height, 2.19 ft (0.668 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.8	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.24	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.15
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.34
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.11
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.01	.00	.00	.00	.20	.00	.00
11	.00	.00	.00	.00	.00	.05	.00	.00	.00	.11	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.26	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.40	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	2.9	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.21	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	1.1	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	1.2	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.1	.00	.13
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.18	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.22	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	3.57	2.30	.00	.22	3.71	.18	.77
MEAN	.000	.000	.000	.000	.000	.12	.077	.000	.007	.12	.006	.026
MAX	.00	.00	.00	.00	.00	2.9	1.2	.00	.22	1.8	.18	.34
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	7.1	4.6	.00	.4	7.4	.4	1.5

CAL YR 1980 TOTAL 36.73 MEAN .10 MAX 6.0 MIN .00 AC-FT 73
WTR YR 1981 TOTAL 10.75 MEAN .029 MAX 2.9 MIN .00 AC-FT 21

09367936 BURNHAM WASH NEAR BURNHAM, NM

LOCATION.--Lat 36°21'11", long 108°27'16", San Juan County, Hydrologic Unit 14080106, in Navajo Indian Reservation, on left bank 3.0 mi (4.8 km) upstream from Brimhall Wash, 3.2 mi (5.1 km) east of Burnham Trading Post, and 32 mi (51.5 km) southeast of Shiprock.

DRAINAGE AREA.--8.6 mi^2 (22.3 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-Stage recorder and concrete control. Altitude of gage is 5,480 ft (1,670 m), from topographic map.

REMARKS.--Water-discharge records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 518 ft^3/s (14.7 m^3/s) Sept. 7, 1978, gage height, 4.20 ft (1.280 m) from rating curve extended above 20 ft^3/s (0.57 m^3/s) on basis of slope-area measurement of peak flow; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 122 ft^3/s (3.46 m^3/s) 2015 hours Sept. 23, gage height, 2.48 ft (0.756 m), no other peak above base of 100 ft^3/s (2.8 m^3/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.0	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.56	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.64	.00	.02
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.32	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.41	.00	.00	.00	1.9	.00	.00
11	.00	.00	.00	.00	.00	.25	.00	.00	.00	.07	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	3.9	.74	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	2.9	.54	.00	.00	.00	.00	.19
16	.00	.00	.00	.00	.00	.23	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.71	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.4
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.31	.00	.00	.00	.00	.00	.00	.10	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.04	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.99	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.31	.00	.00	.00	.00	7.69	2.02	.28	1.60	4.95	.13	4.23
MEAN	.010	.000	.000	.000	.000	.25	.067	.009	.053	.16	.004	.14
MAX	.31	.00	.00	.00	.00	3.9	.74	.14	.99	2.0	.13	3.4
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.6	.00	.00	.00	.00	15	4.0	.6	3.2	9.8	.3	8.4

CAL YR 1980	TOTAL 38.61	MEAN .11	MAX 8.6	MIN .00	AC-FT 77
WTR YR 1981	TOTAL 21.21	MEAN .058	MAX 3.9	MIN .00	AC-FT 42

09367936 BURNHAM WASH NEAR BURNHAM, NM--Continued

WATER-QAULITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

REMARKS.--Under the heading SAMPLE SOURCE numerical values are used to indicate sampling method; 40 indicates single-stage sample.

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	SAMPLE SOURCE (72005)
JUN								
30...	2245	E18	609	7.6	240	0	200	40.00
JUL								
10...	1145	E18	1420	7.3	440	0	360	40.00
SEP								
23...	2000	E18	600	7.5	300	0	246	40.00
23...	2015	E75	690	7.5	320	0	262	40.00

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	SAMPLE SOURCE (72005)
JUN				
23...	2245	420000	14000	--
JUL				
10...	1145	550000	33000	40.00
SEP				
23...	2000	460000	23000	40.00
23...	2015	450000	18000	--

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
JUN												
30...	2245	E18	124000	--	--	--	--	--	--	--	--	40.00
JUL												
10...	1145	E18	52500	--	--	--	--	--	--	--	93	40.00
SEP												
23...	2000	E18	77900	45	49	67	91	98	99	100	--	40.00
23...	2030	E16	76800	--	--	--	--	--	--	--	94	40.00
23...	2050	E68	97300	--	--	--	--	--	--	--	87	40.00

09367938 CHACO RIVER NEAR BURNHAM, NM

LOCATION.--Lat 36°21'57", long 108°33'57", San Juan County, Hydrologic Unit 14080106, in Navajo Indian Reservation, on downstream end of second pier on Navajo Highway bridge, 1,300 ft (396 m) downstream from Captain Tom Wash, 2,100 ft (640 m) downstream from Brimhall Wash, 3.5 mi (5.6 km) west of Burnham Trading Post, and about 35 mi (56.3 km) upstream from mouth.

DRAINAGE AREA.--3,640 mi^2 (9,430 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,320 ft (1,622 m), from topographic map.

REMARKS.--Water-discharge records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,740 ft^3/s (191 m^3/s) Jan. 18, 1979, gage height, 4.38 ft (1.335 m) from rating curve extended above 3,540 ft^3/s (100 m^3/s); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 1	0945	*3930	111	3.88	1.183	July 16	0130	2230	63.2	3.77	1.149
July 3	0730	1470	41.6	3.19	0.972	July 17	0100	2550	72.2	3.87	1.180
July 11	0315	1620	45.9	3.48	1.061	Sept. 24	0315	2780	78.7	3.37	1.027

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.13	.00	957	25	.00	.00
2	.00	.00	.00	.00	.00	.00	.01	.00	8.4	307	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	3.0	197	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	46	5.3	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	11	.20	.00	47
6	.00	.00	.00	.00	.00	.00	.00	.00	.80	.19	.00	.90
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.18	.00	.25
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.17	.00	.20
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.15	.00	.02
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	45	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	141	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.5	.00	.00
14	.02	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00
15	.16	.00	.00	.00	.00	.00	.00	.00	.00	.39	.00	.00
16	.00	.00	.00	.00	.00	1.0	.00	.00	.00	99	.00	.00
17	.00	.00	.00	.00	.00	17	.00	.00	.00	140	.00	.00
18	.00	.00	.00	.00	.00	19	2.7	.00	.00	1.3	.00	.00
19	.00	.00	.00	.00	.00	27	1.3	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	35	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	20	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	13	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	12	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	6.0	.00	.00	.00	.00	.00	458
25	.00	.00	.00	.00	.00	1.0	.00	.00	.00	.00	.00	7.5
26	.08	.00	.00	.00	.00	.85	.00	.00	.00	.00	.00	3.4
27	11	.00	.00	.00	.00	.57	.00	.00	.00	.00	.00	1.7
28	.05	.00	.00	.00	.00	2.0	.00	.00	.00	.00	.00	.90
29	.00	.00	.00	.00	---	1.1	.00	.00	.00	.00	.00	.36
30	.00	.00	.00	.00	---	.60	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.33	---	.00	---	.00	.00	---
TOTAL	11.31	.00	.00	.00	.00	156.45	4.14	.00	1026.20	963.47	.00	520.23
MEAN	.36	.000	.000	.000	.000	5.05	.14	.000	34.2	31.1	.000	17.3
MAX	11	.00	.00	.00	.00	35	2.7	.00	957	307	.00	458
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	22	.00	.00	.00	.00	310	8.2	.00	2040	1910	.00	1030

CAL YR 1980 TOTAL 3509.29 MEAN 9.59 MAX 330 MIN .00 AC-FT 6960
WTR YR 1981 TOTAL 2681.80 MEAN 7.35 MAX 957 MIN .00 AC-FT 5320

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

REMARKS.--Under the heading SAMPLE SOURCE numerical values are used to indicate sampling method; 40 indicates single-stage sample.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
MAR												
18...	1530	19	970	8.6	11.0	8.5	8.5	23	0	8.0	.6	170
JUN												
02...	1145	8.4	542	8.4	26.5	24.0	7.0	34	0	12	1.0	110
JUL												
02...	1230	307	876	8.3	27.0	27.5	6.4	45	0	16	1.2	180

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
MAR												
18...	16	2.8	600	24	530	190	170	12	1.0	14	594	720
JUN												
02...	8.2	3.9	350	1	290	--	150	14	1.3	15	371	495
JUL												
02...	12	4.2	150	0	120	--	290	11	1.2	16	598	594

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
MAR											
18...	--	4.4	.060	29	--	3.80	290	2200	20	12	85
JUN											
02...	2.8	2.8	.150	14	17	4.40	250	320	10	33	24
JUL											
02...	--	3.2	<.010	--	--	5.00	2000	140	10	11	34

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
MAR											
18...	1530	100	6	8600	100	30	0	290	3	1	120
JUN											
02...	1145	4	6	3400	100	20	0	250	4	0	170
JUL											
02...	1230	99	5	5100	0	30	0	2000	2	0	230

09367938 CHACO RIVER NEAR BURNHAM, NM--Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI) (01132)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
MAR											
18...	0	680	20	250000	2200	460	2	340	20	12000	20
JUN											
02...	0	390	15	260000	320	250	0	290	10	5100	10
JUL											
02...	10	1300	14	370000	140	350	2	340	20	10000	10

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR) (01082)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
MAR										
18...	2.2	.1	220	2	9	7	7400	170	1400	70
JUN										
02...	.8	.0	110	3	1	2	3100	180	950	20
JUL										
02...	--	.0	170	2	0	3	4500	240	1800	10

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)
MAR										
18...	1530	19	8.5	71900	100	4	7	43	89	100
JUN										
02...	1145	8.4	24.0	20500	--	2	8	63	95	100
JUL										
02...	1230	307	27.5	79500	98	2	11	71	98	100

09367950 CHACO RIVER NEAR WATERFLOW, NM

LOCATION.--Lat 36°43'28", long 108°35'27", in SW¼SW¼ sec. 13, T.29 N., R.17 W., San Juan County, Hydrologic Unit 14080106, on downstream end of right bridge pier, 4.2 mi (6.8 km) upstream from Dead Mans Wash, 5.3 mi (8.5 km) downstream from the Hogback, 6.6 mi (10.6 km) southwest of Waterflow, 7.2 mi (11.6 km) southeast of Shiprock and at mile 4.5 (7.2 km).

DRAINAGE AREA.--4,350 mi^2 (11,300 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Water years 1959-69 (annual maximum only), November 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,980 ft (1,518 m), from topographic map. Prior to 1975 at site 1.8 mi (2.9 km) upstream at different datum.

REMARKS.--Water-discharge records good. Base flow is mostly waste water from Four Corners Power Plant.

AVERAGE DISCHARGE.--5 years (water years 1977-81), 40.6 ft^3/s (1.15 m^3/s), 29,410 acre-ft/yr (36.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,300 ft^3/s (207 m^3/s), Sept. 20, 1969, gage height, 7.88 ft (2.402 m) site and datum then in use; no flow at times during 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,280 ft^3/s (36.2 m^3/s) at 1200 hours July 17, gage height, 4.77 ft (1.454 m) no other peak above base of 800 ft^3/s (23 m^3/s); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	21	18	21	20	9.8	11	18	48	53	.00	21
2	17	21	18	20	20	10	12	18	81	84	.00	22
3	17	21	17	21	20	10	14	17	24	45	.00	24
4	17	23	9.2	21	20	10	15	17	66	39	.00	30
5	17	23	13	20	20	11	15	15	31	7.6	.00	40
6	18	23	17	20	20	10	16	16	20	.57	.00	150
7	18	24	18	20	20	11	17	16	19	7.0	.00	50
8	18	24	17	20	20	10	18	16	19	28	.00	30
9	18	25	10	19	20	10	18	17	20	.34	.00	25
10	17	25	9.6	19	19	11	19	16	20	.07	.00	24
11	17	24	9.6	19	18	10	20	15	20	79	.00	23
12	17	24	9.4	20	17	10	21	16	20	161	.00	22
13	18	24	9.8	19	17	10	22	15	20	54	2.5	21
14	18	23	9.2	18	15	11	24	15	20	44	11	21
15	20	23	6.6	19	15	12	24	16	21	52	5.6	21
16	19	22	6.0	20	14	13	23	17	21	191	1.9	21
17	19	23	5.2	19	14	14	22	28	20	382	.00	21
18	19	23	6.3	19	13	31	21	23	20	170	.00	21
19	19	23	6.3	19	12	39	20	20	17	136	.00	21
20	19	20	2.8	19	11	46	19	20	5.1	18	.00	21
21	19	18	2.8	20	11	30	19	23	2.5	3.5	.76	21
22	20	18	2.8	20	11	23	19	23	1.2	1.5	19	22
23	20	18	2.9	21	11	22	19	23	.49	.23	19	22
24	21	17	4.4	20	10	16	19	22	.25	.01	20	113
25	21	17	19	20	11	11	19	22	.16	.00	19	77
26	21	17	20	20	10	10	19	21	.09	2.7	19	32
27	23	17	20	20	10	10	19	21	.03	42	20	16
28	22	17	20	20	10	11	18	20	.00	3.5	20	15
29	22	17	20	19	---	11	19	21	.00	1.3	20	18
30	22	17	21	20	---	11	18	20	.00	.05	21	18
31	22	---	21	20	---	11	---	21	---	.00	21	---
TOTAL	591	632	371.9	612	429	464.8	559	588	536.82	1606.37	219.76	983
MEAN	19.1	21.1	12.0	19.7	15.3	15.0	18.6	19.0	17.9	51.8	7.09	32.8
MAX	23	25	21	21	20	46	24	28	81	382	21	150
MIN	16	17	2.8	18	10	9.8	11	15	.00	.00	.00	15
AC-FT	1170	1250	738	1210	851	922	1110	1170	1060	3190	436	1950

CAL YR 1980 TOTAL 9032.74 MEAN 24.7 MAX 389 MIN .31 AC-FT 17920
WTR YR 1981 TOTAL 7593.65 MEAN 20.8 MAX 382 MIN .00 AC-FT 15060

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: October 1976 to current year.

INSTRUMENTATION.--Automatic pumping sediment sampler.

REMARKS.--Under the heading of SAMPLE SOURCE numerical values are used to indicate sampling method; 26 indicates by automatic pump, 29 indicates dip or grab sample, and 40 indicates single-stage sample.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 140,000 mg/L Jan. 18, 1979; minimum daily, no flow on many days in 1981.
SEDIMENT LOADS: Maximum daily, 740,000 tons (671,000 tonnes) Sept. 25, 1978; minimum daily 0 tons (0 tonne) on many days in 1981.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 84,400 mg/L July 17; minimum daily, no flow on many days.
SEDIMENT LOADS: Maximum daily, 87,100 tons (79,000 tonnes) July 17; minimum daily 0 tons (0 tonne) on many days.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
OCT												
31...	1230	21	1580	8.3	16.0	16.0	8.5	460	360	120	38	180
NOV												
19...	1145	22	1580	8.2	7.5	11.0	9.1	460	350	120	39	180
DEC												
10...	1110	11	1900	8.4	7.0	4.0	11.0	500	390	120	49	210
JAN												
09...	1145	19	1490	8.2	3.0	7.0	10.5	400	280	97	38	180
FEB												
07...	1430	20	1480	8.2	9.0	10.0	9.3	410	300	100	39	170
MAR												
19...	1300	45	1370	8.0	22.0	8.5	9.2	100	0	35	3.6	230
APR												
13...	1430	21	1420	8.2	23.0	24.5	--	380	280	94	35	160
MAY												
19...	1315	20	1400	8.4	29.0	23.0	7.3	370	280	93	34	170
JUN												
11...	1130	21	1320	8.2	35.0	24.5	7.3	360	260	94	31	150
JUL												
10...	1230	.16	1740	8.2	29.0	31.0	6.1	260	160	81	15	280
11...	1600	E191	2160	7.4	--	--	--	--	--	--	--	--
SEP												
03...	1215	23	1350	8.4	31.0	27.0	6.9	350	250	89	30	150

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
OCT											
31...	3.7	6.5	120	0	100	--	590	78	1.7	3.7	--
NOV											
19...	3.7	7.3	130	0	110	--	570	78	1.8	3.9	1150
DEC											
10...	4.1	6.4	130	2	110	--	690	85	2.4	3.0	1370
JAN											
09...	3.9	5.6	140	0	120	--	520	71	.7	2.3	1040
FEB											
07...	3.7	5.6	140	0	110	--	540	71	1.4	.8	1040
MAR											
19...	9.9	4.7	460	0	380	--	340	35	1.0	10	785
APR											
13...	3.6	5.9	120	0	100	--	520	68	1.1	1.4	1030
MAY											
19...	3.8	6.3	120	1	96	--	520	68	1.0	2.0	986
JUN											
11...	3.4	5.3	120	0	100	90	490	64	1.0	2.3	899
JUL											
10...	7.5	7.2	120	0	100	--	690	42	1.1	14	1220
11...	--	--	380	0	310	--	--	--	--	--	--
SEP											
03...	3.8	6.5	120	1	100	--	460	69	1.0	3.6	927

09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
OCT											
31...	1080	--	--	--	--	2600	10	3	--	--	--
NOV											
19...	1080	1.4	.040	.54	.040	2500	<10	2	7.3	--	--
DEC											
10...	1240	--	--	--	--	3400	20	1	--	--	--
JAN											
09...	988	--	--	--	--	940	20	6	--	--	--
FEB											
07...	1000	1.4	.300	1.3	.390	800	70	10	8.8	--	--
MAR											
19...	888	--	--	--	--	340	80	10	--	--	--
APR											
13...	946	--	--	--	--	840	10	7	--	--	--
MAY											
19...	955	1.2	.090	1.8	.200	810	20	7	--	4.2	--
JUN											
11...	893	--	--	--	--	760	20	7	--	--	--
JUL											
10...	1210	4.3	.260	1.2	.100	380	40	10	8.4	.5	--
11...	--	--	--	--	--	--	--	--	--	--	40.00
SEP											
03...	870	--	--	--	--	850	16	5	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
OCT											
31...	1230	--	--	--	--	--	--	2600	--	--	--
NOV											
19...	1145	4	3	200	90	0	<1	2500	3	<1	0
DEC											
10...	1110	--	--	--	--	--	--	3400	--	--	--
JAN											
09...	1145	--	--	--	--	--	--	940	--	--	--
FEB											
07...	1430	--	--	--	--	--	--	800	--	--	--
MAR											
19...	1300	--	--	--	--	--	--	340	--	--	--
APR											
13...	1430	--	--	--	--	--	--	840	--	--	--
MAY											
19...	1315	0	2	300	100	0	<1	810	0	<1	20
JUN											
11...	1130	--	--	--	--	--	--	760	--	--	--
JUL											
10...	1230	--	--	--	--	--	--	380	--	--	--
11...	1600	--	--	--	--	--	--	--	--	--	--
SEP											
03...	1215	--	--	--	--	--	--	850	--	--	--

09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI) (01132)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
OCT											
31...	--	--	--	9700	10	--	--	--	--	180	3
NOV											
19...	0	14	5	8700	<10	14	0	90	90	140	2
DEC											
10...	--	--	--	10000	20	--	--	--	--	120	1
JAN											
09...	--	--	--	16000	20	--	--	--	--	230	6
FEB											
07...	--	--	--	17000	70	--	--	--	--	450	10
MAR											
19...	--	--	--	260000	80	--	--	--	--	7600	10
APR											
13...	--	--	--	20000	10	--	--	--	--	300	7
MAY											
19...	10	30	4	21000	20	21	5	70	70	300	7
JUN											
11...	--	--	--	11000	20	--	--	--	--	180	7
JUL											
10...	--	--	--	2400	40	--	--	--	--	50	10
11...	--	--	--	800000	--	--	--	--	--	27000	--
SEP											
03...	--	--	--	18000	16	--	--	--	--	270	5

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR) (01082)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
OCT											
31...	--	--	--	--	--	--	--	--	--	--	--
NOV											
19...	.2	.0	7	0	4	5	1300	1500	70	<3	--
DEC											
10...	--	--	--	--	--	--	--	--	--	--	--
JAN											
09...	--	--	--	--	--	--	--	--	--	--	--
FEB											
07...	--	--	--	--	--	--	--	--	--	--	--
MAR											
19...	--	--	--	--	--	--	--	--	--	--	--
APR											
13...	--	--	--	--	--	--	--	--	--	--	--
MAY											
19...	.1	.0	17	4	0	0	1500	1500	80	6	--
JUN											
11...	--	--	--	--	--	--	--	--	--	--	--
JUL											
10...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	40.00
SEP											
03...	--	--	--	--	--	--	--	--	--	--	--

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
JUL									
10...	1230	<24	5.1	14	4.2	13	4.0	.15	3.5

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)
OCT								
31...	1230	21	16.0	574	--	--	--	--
NOV								
19...	1145	22	11.0	411	--	--	--	--
DEC								
10...	1110	11	4.0	452	--	--	--	--
JAN								
09...	1145	19	7.0	857	--	--	--	--
FEB								
07...	1430	20	10.0	784	--	--	--	--
MAR								
19...	1300	45	8.5	49400	--	--	--	--
APR								
13...	1430	21	24.5	1120	--	--	--	--
MAY								
19...	1315	20	23.0	--	--	--	--	--
JUN								
11...	1130	21	24.5	593	--	--	--	--
JUL								
01...	0815	E124	--	104000	39	45	50	78
10...	1230	.16	31.0	153	--	--	--	--
11...	1600	E191	--	156000	55	61	70	74
22...	1615	1.3	29.0	65600	--	--	--	--
SEP								
03...	1215	23	27.0	855	--	--	--	--
21...	1545	20	26.0	1010	--	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)
OCT									
31...	--	--	--	--	--	--	--	--	--
NOV									
19...	--	--	--	90	1	7	45	85	100
DEC									
10...	--	--	--	--	--	--	--	--	--
JAN									
09...	--	--	--	--	--	--	--	--	--
FEB									
07...	--	--	--	--	--	--	--	--	--
MAR									
19...	--	--	--	--	--	--	--	--	--
APR									
13...	--	--	--	--	--	--	--	--	--
MAY									
19...	--	--	--	93	4	12	42	86	99
JUN									
11...	--	--	--	--	--	--	--	--	--
JUL									
01...	96	99	100	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
11...	81	94	100	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
SEP									
03...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--

09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	BED MAT. FALL DIAM. % FINER THAN 2.00 MM (80163)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)	SAMPLE SOURCE (72005)
OCT								
31...	--	--	--	--	--	--	--	--
NOV								
19...	--	88	90	92	94	97	100	--
DEC								
10...	--	--	--	--	--	--	--	--
JAN								
09...	--	--	--	--	--	--	--	--
FEB								
07...	--	--	--	--	--	--	--	--
MAR								
19...	--	--	--	--	--	--	--	--
APR								
13...	--	--	--	--	--	--	--	--
MAY								
19...	100	--	--	--	--	--	--	--
JUN								
11...	--	--	--	--	--	--	--	--
JUL								
01...	--	--	--	--	--	--	--	40.00
10...	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	40.00
22...	--	--	--	--	--	--	--	--
SEP								
03...	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	530	23	550	31	620	30	1230	70	930	50	300	7.9
2	590	27	550	31	620	30	930	50	930	50	370	10
3	590	27	550	31	590	27	1230	70	930	50	370	10
4	590	27	2800	174	400	9.9	1230	70	900	49	370	10
5	590	27	2800	174	456	16	930	50	850	46	415	12
6	620	30	2800	174	590	27	930	50	800	43	370	10
7	620	30	3600	233	620	30	930	50	784	42	415	12
8	620	30	3600	233	590	27	930	50	785	42	370	10
9	620	30	4400	297	500	13	857	44	785	42	370	10
10	590	27	4400	297	452	12	855	44	780	40	415	12
11	590	27	3600	233	270	7.0	780	40	620	30	370	10
12	590	27	3600	233	260	6.6	930	50	590	27	370	10
13	620	30	3600	233	300	7.9	780	40	590	27	370	10
14	620	30	2800	174	210	5.2	620	30	490	20	415	12
15	930	50	2800	174	60	1.1	780	40	490	20	430	14
16	780	40	2000	119	50	.81	930	50	485	18	455	16
17	780	40	1200	75	45	.63	780	40	485	18	485	18
18	780	40	600	37	55	.94	780	40	455	16	15500	1300
19	780	40	411	26	55	.94	780	40	430	14	49400	5200
20	780	40	930	50	25	.19	780	40	415	12	50000	6210
21	780	40	620	30	25	.19	930	50	415	12	14200	1150
22	930	50	620	30	25	.19	930	50	415	12	2800	174
23	930	50	620	30	26	.20	1230	70	415	12	1500	89
24	1230	70	590	27	36	.43	930	50	370	10	530	23
25	1230	70	590	27	780	40	930	50	415	12	415	12
26	1230	70	590	27	930	50	930	50	370	10	370	10
27	2800	174	590	27	930	50	930	50	370	10	370	10
28	2000	119	590	27	930	50	930	50	370	10	415	12
29	2000	119	590	27	930	50	780	40	---	---	415	12
30	800	48	590	27	1230	70	930	50	---	---	415	12
31	574	34	---	---	1230	70	930	50	---	---	415	12
TOTAL	---	1486	---	3308	---	634.22	---	1518	---	744	---	14419.9

09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	415	12	620	30	28900	3750	32100	4590	0	.00	1230	70
2	430	14	620	30	43400	9490	44100	10000	0	.00	1500	89
3	485	18	590	27	3600	233	27200	3300	0	.00	3600	233
4	490	20	590	27	38200	6810	22800	2400	0	.00	14200	1150
5	490	20	490	20	15600	1310	700	14	0	.00	23600	2550
6	530	23	530	23	930	50	400	.6	0	.00	60500	24500
7	590	27	530	23	780	40	1000	19	0	.00	30400	4100
8	620	30	530	23	780	40	10600	801	0	.00	14200	1150
9	620	30	590	27	930	50	200	.2	0	.00	4600	310
10	780	40	530	23	700	38	153	.0	0	.00	3600	233
11	930	50	490	20	593	32	35500	23200	0	.00	2800	174
12	930	53	530	23	590	32	61000	26500	0	.00	1500	89
13	1120	67	490	20	590	32	32200	4690	100	.68	1230	70
14	3600	233	490	20	590	32	26100	3100	415	12	1230	70
15	3600	233	530	23	1230	70	29900	4200	200	3.0	1230	70
16	2800	174	590	27	1230	70	65900	34000	50	.26	1230	70
17	1500	89	10600	801	930	50	84400	87100	0	.00	1230	70
18	1230	70	2800	174	930	50	63200	29000	0	.00	1200	68
19	930	50	930	50	590	27	57200	21000	0	.00	1100	62
20	780	40	930	50	45	.62	10000	486	0	.00	1100	62
21	780	40	2800	174	23	.16	5000	47	15	.03	1010	57
22	780	40	2800	174	20	.06	3000	12	780	40	1500	89
23	780	40	2800	174	20	.03	200	.1	780	40	1500	89
24	780	40	1500	89	15	.01	20	.0	930	50	54100	16500
25	780	40	1500	89	15	.00	0	.0	780	40	42300	8790
26	780	40	1230	70	10	.00	16000	117	780	40	16800	1450
27	780	40	1230	70	10	.00	24700	2800	930	50	530	23
28	620	30	930	50	0	.00	2000	19	930	50	490	20
29	780	40	1230	70	0	.00	500	1.8	930	50	620	30
30	620	30	930	50	0	.00	20	.0	1230	70	620	30
31	---	---	1230	70	---	---	0	.0	1230	70	---	---
TOTAL	---	1673	---	2541	---	22206.88	---	257397.7	---	515.97	---	62268

TOTAL LOAD FOR YEAR: 368712.67 TONS.

09368000 SAN JUAN RIVER AT SHIPROCK, NM
(National stream-quality accounting network, surveillance network, and radiochemical network station)

LOCATION.--Lat 36°47'32", long 108°43'54", in NW¼ sec.27, T.30 N., R.18 W., San Juan County, Hydrologic Unit 14080105, 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 mi^2 (33,400 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January to October 1911, February 1927 to current year. Monthly or yearly discharge only for some periods, published in WSP 1313.
REVISED RECORDS.--WSP 1243: 1931, 1934-38, 1951. WSP 1313: 1911, 1933. WDR NM-78-1: 1977.
GAGE.--Water-stage recorder. Datum of gage is 4,848.68 ft (1,477.878 m) National Geodetic Vertical Datum of 1929 (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 (5 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.
REMARKS.--Water-discharge records good except those for September, which are fair and those for July, which are poor. Since 1962 flow partly regulated by Navajo Reservoir (station 09355100). Diversions for irrigation of about 118,000 acres (480 km^2) above station. Ungaged canals bypass station on both right and left bank, though some of bypass flow is returned to river below gage.
AVERAGE DISCHARGE.--55 years (water years 1927-81), 2,176 ft^3/s (61.62 m^3/s), 1,577,000 acre-ft/yr (1.94 km^3/yr), unadjusted.
EXTREMES FOR PERIOD OF RECORD (SINCE 1927).--Maximum discharge, about 80,000 ft^3/s (2,270 m^3/s) Aug. 11, 1929, gage height, 5.7 ft (1.73 m), site and datum then in use; minimum daily, 8 ft^3/s (0.23 m^3/s) Aug. 25, 26, 1939.
EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood occurred Oct. 6, 1911, and reached a stage of 22 ft (6.7 m), site and datum then in use.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,450 ft^3/s (154 m^3/s) at 0730 hours July 2, gage height, 6.12 ft (1.865 m), no peak above base of 6,000 ft^3/s (170 m^3/s); minimum daily, 231 ft^3/s (6.54. m^3/s) May 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1030	1600	1880	2070	1250	888	540	1120	2660	2020	730	800
2	1010	1620	1820	2080	1270	936	447	1820	2570	4000	690	832
3	1490	1630	1820	2080	1330	1000	449	1850	2730	2000	650	848
4	1490	1650	1790	2070	1360	984	469	2410	3530	1600	600	888
5	1440	1720	1830	2090	1380	920	482	2100	2580	1400	580	1130
6	1210	1790	1690	2090	1380	921	469	1600	2770	1200	615	2020
7	445	1830	1290	2100	1400	918	447	1260	3580	950	594	1480
8	534	1800	942	2060	1380	919	397	1020	4020	800	483	1670
9	969	1820	704	2050	1450	914	404	925	4140	700	494	1660
10	957	1850	653	2050	1470	941	377	772	3900	700	571	1350
11	970	1790	596	2010	1430	1020	330	620	3400	1100	879	1290
12	953	1760	607	2010	1450	1020	314	548	2990	1600	1180	1220
13	509	1760	684	2100	1440	1010	364	476	2580	1700	1270	1230
14	964	1730	967	2090	1460	1010	353	376	2130	2800	1130	1280
15	1120	1890	1420	2050	1480	1110	362	231	1740	2700	965	1360
16	1310	1990	1590	2020	1510	1070	410	338	1270	3300	887	1470
17	1370	1980	1610	2030	1520	995	425	669	1030	2500	824	1320
18	1430	1970	1660	2030	1490	1020	401	682	982	1900	830	1390
19	1420	1910	1690	1980	1270	989	695	566	1000	1500	904	1410
20	1360	1850	1870	1980	1160	999	760	485	818	1200	787	1330
21	1330	1950	2050	2020	1180	1030	692	603	818	1000	776	1310
22	1280	1960	2080	2020	1160	1010	619	659	825	700	697	1290
23	1240	1920	2080	1680	1150	997	561	606	783	600	660	1290
24	1330	1930	2110	1360	1140	976	604	580	673	500	669	1310
25	1400	1950	2150	1320	1110	988	610	510	519	520	713	1310
26	1470	1950	2140	1300	1140	791	744	579	465	600	805	1310
27	1580	1940	2060	1300	1040	541	918	734	529	800	760	1300
28	1600	1950	2060	1300	896	654	910	984	663	1450	822	1270
29	1650	1900	2050	1290	---	591	835	1730	687	1200	768	1270
30	1640	1870	2060	1260	---	559	881	2270	757	900	800	1230
31	1600	---	2050	1260	---	561	---	2240	---	800	808	---
TOTAL	38101	55260	50003	57150	36696	28282	16269	31363	57139	44740	23941	38818
MEAN	1229	1842	1613	1844	1311	912	542	1012	1905	1443	772	1294
MAX	1650	1990	2150	2100	1520	1110	918	2410	4140	4000	1270	2020
MIN	445	1600	596	1260	896	541	314	231	465	500	483	800
AC-FT	75570	109600	99180	113400	72790	56100	32270	62210	113300	88740	47490	77000

CAL YR 1980 TOTAL 974065 MEAN 2661 MAX 10400 MIN 445 AC-FT 1932000
WTR YR 1981 TOTAL 477762 MEAN 1309 MAX 4140 MIN 231 AC-FT 947600

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1941-45, 1951 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1941 to September 1945, July 1957 to current year.
WATER TEMPERATURES: December 1950 to current year.
SUSPENDED SEDIMENT DISCHARGE: December 1950 to current year.

INSTRUMENTATION.--Continous water-temperature and specific conductance recorders since March 1978.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (Water years 1957-81): Maximum daily, 4,360 micromhos July 31, 1959; minimum daily, 180 micromhos June 29, 30, 1979.
WATER TEMPERATURES: Maximum, 34.0°C July 20, 1968; minimum, 0.0°C on many days during winter months of most years.
SEDIMENT CONCENTRATIONS: Maximum daily, 114,000 mg/L Aug. 11, 1967; minimum daily, 2 mg/L May 4, 1963.
SEDIMENT LOADS: Maximum daily, 2,000,000 tons (1,810,000 tonnes) Aug. 11, 1967; minimum daily, 1 ton (.91 tonne) on several days during July and September 1959, September 1962, May and July 1963.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,520 micromhos Mar. 13; minimum daily, 284 micromhos June 10.
WATER TEMPERATURES: Maximum, 25.0°C June 29, July 8, 23, 26, Aug.2,4; minimum, 3.0°C on many days during December to February.
SEDIMENT CONCENTRATIONS: Maximum daily, 37,000 mg/L July 2; minimum daily, 20 mg/L Mar. 9.
SEDIMENT LOADS: Maximum daily, 400,000 tons (363,000 tonnes) July 2; minimum daily, 21 tons (19 tonnes) Apr. 12.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
NOV												
05...	1210	1620	530	8.3	15.0	7.0	15	12.2	190	88	--	55
DEC												
02...	1100	1800	490	8.3	7.5	6.5	12	12.4	170	66	--	48
JAN												
07...	1015	2040	460	7.8	-1.5	4.0	18	12.0	140	52	--	43
FEB												
04...	1100	1400	490	7.8	10.0	4.5	15	13.2	180	80	--	53
MAR												
06...	1030	930	660	8.0	11.0	7.5	17	7.8	220	110	--	65
13...	1000	1010	2450	8.2	--	9.0	--	--	990	--	790	200
14...	1500	1010	737	8.8	--	10.0	--	--	--	--	--	--
APR												
07...	1500	466	700	8.9	21.0	14.0	7.1	12.1	240	--	130	72
MAY												
06...	1130	1620	450	7.6	28.0	17.0	63	12.1	160	--	75	51
28...	1300	1040	580	8.1	28.0	21.0	44	7.7	210	--	100	65
JUN												
30...	1330	732	570	8.3	30.0	24.5	15	8.0	220	--	110	67
AUG												
04...	1330	836	580	7.9	37.0	25.0	--	7.8	--	--	--	--
SEP												
01...	1200	785	630	8.4	29.0	18.5	160	9.8	200	--	92	61

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
NOV												
05...	12	41	1.3	2.4	100	150	11	.3	7.1	347	340	.03
DEC												
02...	11	36	1.2	2.1	99	130	9.7	.3	8.2	321	306	.21
JAN												
07...	9.0	30	1.1	1.9	93	110	8.3	.3	9.9	276	270	.25
FEB												
04...	11	41	1.3	2.1	--	160	10	.2	9.1	327	346	.21
MAR												
06...	13	58	1.7	2.5	110	210	15	.4	6.5	438	437	.15
13...	120	230	3.2	5.0	200	1100	26	.3	11	--	1860	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
07...	15	64	1.8	2.4	110	240	17	.3	4.1	496	481	.06
MAY												
06...	8.6	31	1.1	1.7	88	120	7.6	.3	6.8	290	282	.38
28...	12	40	1.2	2.3	110	180	12	.4	5.5	389	384	.05
JUN												
30...	12	45	1.3	2.5	110	170	13	.3	6.6	393	383	.02
AUG												
04...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
01...	12	51	1.6	2.5	110	190	13	.3	9.8	414	406	.24

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
NOV												
05...	.00	.020	.020	.54	.59	.200	--	--	--	6.6	7.0	.9
DEC												
02...	.21	.040	.040	.82	1.1	.150	70	20	--	--	--	--
JAN												
07...	.25	.100	.090	1.7	2.1	.110	50	30	9	--	4.2	--
FEB												
04...	.19	.050	.040	.74	1.0	.140	40	40	--	5.7	--	--
MAR												
06...	.16	.110	.050	3.0	3.3	.060	--	--	--	8.1	--	--
13...	11	--	--	--	--	--	--	40	10	--	--	--
14...	.42	--	--	--	--	--	60	--	--	--	--	--
APR												
07...	.06	.050	.040	.82	.93	.090	90	40	30	--	6.1	--
MAY												
06...	.33	.130	.070	1.1	1.6	.220	--	--	--	5.6	--	--
28...	.04	.140	.130	1.2	1.4	.050	70	20	--	8.7	--	--
JUN												
30...	.06	.060	.080	1.0	1.1	.090	240	10	10	--	3.3	.6
AUG												
04...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
01...	.10	.190	.090	1.2	1.6	.160	80	14	7	--	2.9	.3

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)
NOV												
05...	1210	--	--	--	--	--	--	--	--	--	--	--
JAN												
07...	1015	2	2	100	70	50	1	2	10	0	3	<3
FEB												
04...	1100	--	--	--	--	40	--	--	--	--	--	--
MAR												
14...	1500	--	--	--	--	60	--	--	--	--	--	--
APR												
07...	1500	2	2	100	80	90	0	2	20	10	0	<3
MAY												
06...	1130	--	--	--	--	--	--	--	--	--	--	--
JUN												
30...	1330	3	2	100	200	240	1	<1	0	0	1	<3
SEP												
01...	1200	3	2	200	80	80	0	<1	10	0	3	<3

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI) (01132)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)
NOV											
05...	--	--	--	--	--	--	20	20	--	--	--
JAN											
07...	13	3	2800	30	25	2	--	--	250	9	.3
FEB											
04...	--	--	--	40	--	--	20	20	--	--	--
MAR											
14...	--	--	--	--	--	--	--	30	--	--	--
APR											
07...	0	3	460	40	2	1	--	--	60	30	.2
MAY											
06...	--	--	--	--	--	--	20	20	--	--	--
JUN											
30...	8	3	940	10	12	3	--	--	120	10	.3
SEP											
01...	16	2	6700	14	8	3	--	--	260	7	.1

DATE	MERCURY DISSOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR) (01082)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV											
05...	--	--	--	--	--	--	--	620	730	--	--
JAN											
07...	.1	6	3	2	2	0	0	--	--	40	10
FEB											
04...	--	--	--	--	--	--	--	560	1	--	--
MAR											
14...	--	--	--	--	--	--	--	--	970	--	--
APR											
07...	.1	3	1	1	2	1	1	--	--	60	6
MAY											
06...	--	--	--	--	--	--	--	530	590	--	--
JUN											
30...	.1	2	4	0	1	0	0	--	--	50	20
SEP											
01...	.3	7	2	2	3	0	0	--	--	70	19

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITROGEN,TOT IN BOTTOM MATERIAL (MG/KG AS N) (00603)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)
MAY								
06...	1130	.0	9.5	5.0	90	0	0	1

DATE	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
MAY							
06...	0	3	210	0	210	.01	10

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

WATER-QUALITY RECORDS

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
MAY									
06...	1130	<8.3	12	4.2	8.7	4.1	8.2	.06	1.8

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV			
05...	1210	30	38
DEC			
02...	1100	1000	200
JAN			
07...	1015	28	50
FEB			
04...	1100	5	18
MAR			
06...	1030	5	16
APR			
07...	1500	18	120
MAY			
06...	1130	830	630
28...	1300	200	280
JUN			
30...	1330	250	480
AUG			
04...	1330	2000	250
SEP			
01...	1200	370	410

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
IDENTIFICATION OF PHYTOPLANKTON

DATE	MAR 6,81		MAY 28,81		JUN 5,81		JUN 30,81		AUG 4,81		SEP 1,81	
TIME	1030		1300		1130		1330		1330		1200	
TOTAL CELLS/ML	940		14000		4600		840		1300		3300	
DIVERSITY: DIVISION	0.7		0.2		1.0		0.6		0.7		0.8	
.CLASS	0.7		0.2		1.0		0.6		0.7		0.8	
..ORDER	2.2		2.4		2.6		2.4		2.8		2.3	
...FAMILY	2.3		2.9		3.1		2.7		2.9		2.4	
....GENUS	2.3		3.2		3.3		2.8		3.0		2.6	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)												
.BACILLARIOPHYCEAE												
..ACHNANTHALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	240	2	--	-	--	-	--	-	--	-
....COCCONEIS	--	-	480	3	99	2	78	9	70	5	58	2
....RHOICOSPHENIA	26	3	1400	10	130	3	26	3	42	3	86	3
..BACILLARIALES												
...NITZSCHIACEAE												
....NITZSCHIA	78	8	3500#	24	460	10	340#	40	450#	34	690#	21
..EPITHEMIALES												
...EPITHEMIACEAE												
....EPITHEMIA	--	-	120	1	33	1	--	-	--	-	--	-
..EUPODISCALES												
...COSCINODISCACEAE												
....CYCLOTELLA	--	-	360	3	--	-	39	5	200#	15	--	-
....MELOSIRA	39	4	120	1	170	4	--	-	--	-	--	-
..FRAGILARIALES												
...FRAGILARIACEAE												
....DIATOMA	260#	27	120	1	33	1	26	3	70	5	1100#	34
....SYNEDRA	--	-	240	2	130	3	--	-	--	-	120	3
..NAVICULALES												
...CYMBELLACEAE												
....CYMBELLA	--	-	720	5	700	15	--	-	14	1	--	-
...GOMPHONEMACEAE												
....GOMPHONEMA	13	1	970	7	99	2	52	6	14	1	86	3
...NAVICULACEAE												
....CALONEIS	--	-	--	-	33	1	--	-	--	-	--	-
....GYROSIGMA	--	-	120	1	--	-	--	-	--	-	--	-
....NAVICULA	400#	42	3400#	24	1300#	27	140#	17	200#	15	580#	17
..SURIRELLALES												
...SURIRELLACEAE												
....CYMATOPLEURA	--	-	120	1	--	-	--	-	--	-	--	-
....SURIRELLA	--	-	1900	13	430	9	13	2	56	4	29	1
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...MICRACTINIACEAE												
....MICRACTINIUM	--	-	--	-	--	-	52	6	--	-	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	120	1	--	-	--	-	28	2	29	1
....KIRCHNERIELLA	--	-	120	1	--	-	--	-	--	-	--	-
....OOCYSTIS	100	11	--	-	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	33	1	--	-	--	-	--	-
...PALMELLACEAE												
....SPHAEROCYSTIS	--	-	--	-	130	3	--	-	--	-	--	-
...SCENEDESMACEAE												
....SCENEDESMUS	--	-	--	-	--	-	52	6	56	4	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	120	1	--	-	26	3	84	6	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	--	-	--	-	--	-	--	-	14	1	--	-
..NOSTOCALES												
...HAMMATOIDEACEAE												
....RAPHIDIOPSIS	--	-	--	-	200	4	--	-	--	-	--	-
...NOSTOCACEAE												
....ANABAENA	--	-	--	-	--	-	--	-	--	-	460	14
..OSCILLATORIALES												
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	660	14	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	--	-	--	-	33	1	--	-	--	-	--	-
....TRACHELOMONAS	13	1	120	1	--	-	--	-	14	1	58	2
PYRRHOPHYTA (FIRE ALGAE)												
.DINOPHYCEAE												
..DINOKONTAE												
...GLENODINIACEAE												
....GLENODINIUM	13	1	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)
NOV								
05...	1210	1620	7.0	434	1900	--	--	--
DEC								
02...	1100	1800	6.5	153	744	--	--	--
JAN								
07...	1015	2040	4.0	1260	6940	--	--	--
MAR								
20...	1100	1000	7.0	2610	7050	81	92	96
APR								
20...	1100	746	12.0	1700	3420	49	64	86
MAY								
17...	1100	676	12.0	1500	2740	72	80	93
31...	1100	2340	15.0	2280	14400	68	78	89
JUN								
04...	1430	3540	16.0	2700	25800	50	61	83
JUL								
02...	0900	4900	18.0	46600	617000	55	64	82
28...	1300	1450	24.0	6120	24000	57	70	87
AUG								
11...	1100	896	21.0	8310	20100	59	70	93
SEP								
06...	1130	1900	18.0	14500	74400	50	55	81
19...	1030	1520	17.0	3060	12600	53	64	89

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM (70336)
NOV								
05...	--	--	13	15	19	38	94	100
DEC								
02...	--	--	35	47	63	85	100	--
JAN								
07...	--	--	5	--	--	--	--	--
MAR								
20...	--	--	99	100	--	--	--	--
APR								
20...	--	--	98	99	100	--	--	--
MAY								
17...	100	--	--	--	--	--	--	--
31...	--	--	98	100	--	--	--	--
JUN								
04...	--	--	96	100	--	--	--	--
JUL								
02...	99	100	--	--	--	--	--	--
28...	--	--	99	100	--	--	--	--
AUG								
11...	100	--	--	--	--	--	--	--
SEP								
06...	99	100	--	--	--	--	--	--
19...	--	--	98	100	--	--	--	--

SAN JUAN RIVER BASIN
09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued
WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	594	546	510	445	498	649	848	533	442	606	597	588
2	547	546	505	453	520	629	1740	545	410	1400	640	589
3	509	547	493	434	505	690	846	462	483	713	611	570
4	528	534	521	528	505	690	865	429	492	540	609	563
5	523	538	501	439	512	684	838	391	434	523	671	609
6	527	548	505	430	523	647	846	444	395	505	618	744
7	775	521	541	430	505	689	844	503	322	532	520	739
8	812	524	644	437	504	648	861	543	319	532	582	644
9	514	523	759	428	508	614	834	558	303	550	540	622
10	517	521	745	410	543	649	856	612	284	569	661	612
11	512	527	735	420	822	605	757	639	285	841	786	580
12	531	521	1450	429	506	664	764	668	306	823	790	625
13	610	525	796	434	509	2520	790	708	322	617	587	585
14	571	655	684	453	499	755	797	737	351	721	589	555
15	606	631	577	450	522	713	759	827	387	698	569	565
16	545	530	491	452	504	734	787	799	428	625	570	527
17	563	518	505	449	495	685	764	758	485	633	551	509
18	547	505	480	432	500	660	796	746	529	526	549	510
19	587	500	481	432	535	636	801	663	506	485	559	577
20	542	513	485	445	593	680	820	919	523	508	560	531
21	562	499	446	487	627	637	713	663	544	546	545	525
22	531	492	444	441	582	627	705	651	524	565	578	517
23	543	505	446	449	1790	649	783	646	530	579	571	513
24	529	501	446	551	1790	648	700	661	556	593	571	520
25	528	506	470	509	573	676	713	870	564	591	580	543
26	539	499	444	519	549	659	578	697	602	562	637	543
27	545	492	451	524	646	864	578	638	624	577	582	528
28	572	489	449	525	667	837	575	573	623	683	573	527
29	561	494	546	540	---	841	578	524	581	543	621	517
30	556	536	510	523	---	786	575	509	603	558	586	517
31	541	---	467	519	---	841	---	436	---	576	573	---
MEAN	563	526	565	465	637	752	790	624	459	623	599	570

WTR YR 1981 MEAN 598 MAX 2520 MIN 284

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.0	8.0	6.0	6.0	3.0	5.0	10.0	15.0	15.0	20.0	22.0	19.0
2	14.0	9.0	6.0	6.0	4.0	4.0	12.0	14.0	14.0	18.0	25.0	20.0
3	13.0	9.0	5.0	5.0	4.0	4.0	10.0	15.0	17.0	20.0	22.0	19.0
4	12.0	9.0	5.0	6.0	4.0	6.0	7.0	14.0	16.0	22.0	24.0	18.0
5	16.0	9.0	6.0	5.0	3.0	7.0	9.0	12.0	15.0	20.0	23.0	18.0
6	13.0	10.0	7.0	5.0	3.0	6.0	13.0	13.0	17.0	20.0	22.0	18.0
7	14.0	10.0	7.0	3.0	5.0	8.0	12.0	15.0	16.0	21.0	21.0	17.0
8	17.0	11.0	7.0	3.0	4.0	10.0	12.0	14.0	15.0	25.0	23.0	17.0
9	16.0	9.0	5.0	4.0	5.0	11.0	13.0	11.0	15.0	23.0	20.0	19.0
10	14.0	12.0	3.0	7.0	4.0	9.0	12.0	16.0	17.0	24.0	20.0	19.0
11	14.0	9.0	5.0	4.0	4.0	11.0	13.0	14.0	18.0	23.0	21.0	20.0
12	12.0	12.0	5.0	5.0	4.0	11.0	12.0	13.0	19.0	24.0	19.0	16.0
13	14.0	10.0	4.0	4.0	5.0	9.0	15.0	13.0	19.0	22.0	21.0	21.0
14	13.0	10.0	4.0	4.0	5.0	10.0	14.0	14.0	19.0	22.0	20.0	20.0
15	10.0	9.0	5.0	4.0	7.0	8.0	13.0	14.0	16.0	23.0	19.0	16.0
16	10.0	7.0	5.0	5.0	6.0	11.0	11.0	12.0	14.0	22.0	22.0	16.0
17	11.0	4.0	5.0	5.0	7.0	7.0	13.0	12.0	17.0	22.0	23.0	16.0
18	9.0	5.0	6.0	5.0	7.0	7.0	15.0	13.0	16.0	20.0	23.0	17.0
19	8.0	5.0	6.0	4.0	7.0	9.0	13.0	14.0	17.0	24.0	20.0	17.0
20	10.0	6.0	5.0	4.0	7.0	7.0	12.0	14.0	19.0	23.0	22.0	17.0
21	8.0	7.0	5.0	4.0	4.0	9.0	12.0	12.0	18.0	24.0	20.0	16.0
22	10.0	5.0	6.0	4.0	4.0	9.0	13.0	14.0	21.0	22.0	20.0	16.0
23	14.0	4.0	6.0	5.0	5.0	11.0	12.0	15.0	20.0	25.0	20.0	16.0
24	16.0	6.0	6.0	5.0	6.0	10.0	15.0	17.0	21.0	23.0	21.0	17.0
25	15.0	6.0	4.0	4.0	7.0	11.0	17.0	17.0	19.0	22.0	20.0	17.0
26	5.0	6.0	5.0	3.0	7.0	13.0	15.0	16.0	22.0	25.0	20.0	19.0
27	7.0	6.0	5.0	3.0	5.0	10.0	15.0	17.0	21.0	21.0	22.0	18.0
28	7.0	5.0	5.0	5.0	7.0	8.0	15.0	16.0	22.0	24.0	21.0	16.0
29	7.0	5.0	5.0	5.0	---	10.0	15.0	15.0	25.0	21.0	19.0	15.0
30	7.0	7.0	4.0	5.0	---	10.0	15.0	17.0	22.0	22.0	21.0	18.0
31	7.0	---	5.0	5.0	---	7.0	---	15.0	---	24.0	19.0	---
MEAN	11.5	7.5	5.5	4.5	5.0	8.5	13.0	14.5	18.0	22.5	21.0	17.5

WTR YR 1981 MEAN 12.5 MAX 25.0 MIN 3.0

WATER TEMPERATURE (DEG.°C), RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	17.5	13.0	15.5	10.5	7.5	9.0	---	---	---	6.0	4.0	5.0
2	18.0	13.0	15.5	10.5	7.5	9.0	6.5	5.0	6.0	7.0	5.0	6.0
3	15.5	13.0	14.0	10.0	7.5	8.5	7.5	5.0	6.0	7.0	5.0	6.0
4	16.5	12.5	14.5	10.5	7.5	9.0	6.5	5.0	6.0	6.5	4.5	5.5
5	16.0	12.0	14.0	9.5	8.0	8.5	6.5	5.5	6.0	6.5	4.5	5.5
6	16.5	12.0	14.5	---	---	---	7.5	6.0	6.5	5.5	4.0	4.5
7	21.0	10.0	15.0	---	---	---	8.0	6.5	7.0	5.0	3.0	4.0
8	19.5	7.5	14.5	---	---	---	6.5	5.0	5.5	5.5	3.0	4.0
9	17.0	13.0	15.0	---	---	---	5.0	3.0	4.0	5.5	3.0	4.0
10	16.5	12.0	14.5	---	---	---	4.0	1.5	3.0	5.5	3.0	4.0
11	16.5	12.5	14.5	---	---	---	3.5	1.0	2.5	5.5	3.0	4.5
12	15.0	12.5	14.0	---	---	---	3.5	1.0	2.5	6.0	4.5	5.5
13	18.5	12.5	15.0	---	---	---	4.5	2.5	3.5	6.0	4.5	5.0
14	15.0	13.0	14.0	---	---	---	5.0	3.5	4.0	5.5	3.5	4.5
15	13.5	10.0	11.5	---	---	---	6.0	4.0	5.0	5.5	3.0	4.0
16	10.5	8.5	9.5	---	---	---	6.0	4.5	5.0	5.5	3.0	4.5
17	11.0	7.0	9.0	---	---	---	6.5	4.0	5.0	7.0	4.5	5.5
18	11.0	7.0	9.0	---	---	---	6.5	4.5	5.5	6.0	4.0	5.0
19	11.0	7.0	9.0	---	---	---	6.5	4.5	5.5	6.0	3.5	4.5
20	11.5	8.0	10.0	---	---	---	6.5	4.5	5.5	5.5	3.5	4.5
21	11.5	8.0	9.5	---	---	---	6.0	4.0	5.0	5.5	3.0	4.5
22	11.0	8.0	9.5	---	---	---	6.0	4.0	5.0	5.5	3.0	4.5
23	10.0	7.5	8.5	---	---	---	6.5	4.5	5.5	5.5	3.0	4.5
24	9.5	6.0	7.5	---	---	---	6.0	4.5	5.0	6.0	3.5	4.5
25	9.5	5.5	7.5	---	---	---	5.5	3.5	4.5	5.5	3.0	4.0
26	8.0	7.5	7.5	---	---	---	6.0	4.0	5.0	4.5	2.0	3.5
27	7.5	6.5	7.0	---	---	---	6.0	4.0	5.0	4.5	2.0	3.5
28	8.5	6.5	7.5	---	---	---	6.0	4.5	5.5	5.5	4.0	4.5
29	9.0	5.5	7.0	---	---	---	7.0	4.5	5.5	6.5	3.5	5.0
30	9.5	6.0	8.0	---	---	---	6.5	4.5	5.5	5.5	3.5	4.5
31	10.5	7.0	9.0	---	---	---	6.0	4.0	5.0	4.5	3.0	4.0
MONTH	21.0	5.5	11.5	10.5	7.5	9.0	8.0	1.0	5.0	7.0	2.0	4.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.0	2.0	3.0	9.5	6.5	8.0	13.5	7.0	10.5	21.5	16.0	18.5
2	4.0	1.0	2.5	9.0	8.0	8.5	13.0	8.5	11.0	19.5	16.5	17.5
3	4.5	1.5	3.0	8.0	7.0	7.5	10.5	7.0	9.0	19.0	15.5	17.0
4	5.0	2.5	3.5	8.5	6.0	7.0	10.5	5.5	7.5	17.5	14.0	15.5
5	5.5	2.5	4.0	9.5	6.0	7.5	11.5	4.0	8.5	17.0	13.0	15.0
6	5.0	2.5	4.0	8.0	6.5	7.5	13.0	6.5	10.5	14.0	13.0	13.5
7	5.5	3.0	4.0	9.5	6.0	7.5	15.0	9.5	12.5	---	---	---
8	4.5	2.5	4.0	10.0	6.0	7.5	15.5	6.0	12.5	---	---	---
9	5.0	4.0	4.5	10.5	5.5	8.0	17.0	9.0	14.0	---	---	---
10	5.0	3.5	4.5	9.0	7.0	7.5	19.5	10.5	15.0	---	---	---
11	4.0	2.5	3.0	9.5	7.0	8.0	21.0	7.0	15.0	---	---	---
12	5.5	2.5	4.0	11.0	6.5	8.5	20.0	7.0	14.5	---	---	---
13	6.5	4.0	5.0	10.5	7.5	9.0	19.0	6.0	14.5	---	---	---
14	6.5	4.5	5.5	9.5	7.5	8.5	17.0	8.5	13.0	---	---	---
15	7.5	5.5	6.5	10.0	6.0	7.5	17.5	7.5	13.0	---	---	---
16	8.0	5.5	7.0	10.5	6.5	8.5	18.0	11.5	15.5	---	---	---
17	8.0	6.0	7.0	9.5	6.5	8.0	20.0	13.5	17.0	---	---	---
18	8.5	6.5	7.5	9.5	5.0	7.0	18.5	14.5	16.5	---	---	---
19	9.0	7.0	8.0	9.5	5.5	7.5	17.0	14.0	15.0	---	---	---
20	9.0	7.5	8.0	8.5	6.5	7.5	16.5	13.0	15.0	---	---	---
21	7.5	4.5	5.5	9.0	4.5	7.0	18.5	12.5	15.5	---	---	---
22	6.0	4.0	5.0	11.0	5.5	8.0	17.5	13.0	15.0	---	---	---
23	7.5	4.5	6.0	13.0	7.5	10.0	19.5	11.5	15.5	---	---	---
24	8.5	5.5	7.0	13.5	9.5	11.0	20.0	14.0	17.0	---	---	---
25	8.0	6.0	7.0	13.0	8.0	10.5	21.0	14.5	17.5	---	---	---
26	8.0	6.5	7.0	15.0	7.0	11.0	20.5	15.5	17.5	---	---	---
27	7.5	5.5	6.5	13.0	3.5	7.0	20.0	15.5	17.5	---	---	---
28	8.0	5.5	6.5	9.0	2.5	6.5	20.5	15.0	18.0	22.0	19.0	20.5
29	---	---	---	12.5	1.0	7.5	21.5	15.0	18.0	19.5	17.0	18.0
30	---	---	---	16.5	2.5	7.5	21.5	16.0	18.5	20.0	15.0	17.5
31	---	---	---	14.0	8.5	11.0	---	---	---	18.5	16.5	17.5
MONTH	9.0	1.0	5.5	16.5	1.0	8.0	21.5	4.0	14.5	22.0	13.0	17.0

SAN JUAN RIVER BASIN
09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued
WATER-QUALITY RECORDS

WATER TEMPERATURE (DEG.°C), RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.5	16.0	18.0	23.5	20.0	22.0	---	---	---	22.5	17.0	20.0
2	20.0	16.0	18.0	21.5	18.5	20.0	---	---	---	22.0	17.5	19.5
3	18.0	16.0	17.0	21.5	20.0	21.0	---	---	---	23.0	18.0	20.5
4	18.5	13.5	16.0	21.5	20.5	21.0	26.5	22.5	25.0	20.5	18.0	19.0
5	20.5	15.5	18.0	21.5	20.5	21.0	26.0	20.5	23.5	20.0	17.5	18.5
6	22.0	17.5	20.0	22.5	21.5	21.5	26.0	16.0	22.5	19.0	17.5	18.0
7	21.5	17.5	19.5	22.5	22.0	22.0	26.0	20.0	23.0	19.0	17.5	18.5
8	20.5	17.0	18.5	22.5	22.0	22.0	26.5	20.5	23.5	19.5	18.0	19.0
9	20.5	16.5	18.5	22.5	21.5	22.0	24.5	20.5	22.5	19.5	19.0	19.0
10	20.5	16.5	18.5	22.0	21.5	22.0	23.0	19.5	21.0	19.0	19.0	19.0
11	21.5	17.0	19.0	22.0	21.5	22.0	22.0	19.0	20.0	19.0	18.5	18.5
12	21.5	17.0	19.0	22.0	22.0	22.0	22.5	18.0	19.0	18.5	18.5	18.5
13	21.0	16.5	18.5	22.5	21.5	21.5	20.0	18.5	19.0	18.5	18.5	18.5
14	19.0	16.0	17.5	24.5	21.0	22.5	21.5	18.5	20.0	18.5	18.5	18.5
15	18.0	13.5	16.0	23.5	21.0	22.0	23.0	19.5	21.0	---	---	---
16	20.5	14.5	17.5	22.5	21.0	22.0	22.5	20.0	21.0	---	---	---
17	22.0	16.5	19.0	23.5	20.5	22.0	22.5	20.0	21.5	---	---	---
18	22.5	17.5	20.0	24.0	20.5	22.5	23.0	20.0	21.5	---	---	---
19	23.0	18.0	20.5	25.0	20.5	22.5	22.5	20.0	21.5	---	---	---
20	24.0	18.5	21.0	26.0	20.5	23.0	22.5	20.5	21.5	---	---	---
21	24.0	19.0	21.5	26.0	21.0	23.5	22.5	20.5	21.5	---	---	---
22	24.5	19.5	22.0	26.5	22.0	24.0	22.0	19.5	21.0	---	---	---
23	25.5	20.0	23.0	26.0	22.0	24.0	23.0	19.5	21.0	---	---	---
24	26.5	20.5	23.5	26.5	21.5	24.0	22.5	20.0	21.0	---	---	---
25	27.0	20.5	24.0	26.0	22.0	24.0	23.0	20.0	21.5	---	---	---
26	27.0	21.0	24.5	25.5	20.5	23.0	22.5	19.5	21.5	---	---	---
27	26.5	22.0	24.5	24.5	20.5	22.5	22.5	20.0	21.0	---	---	---
28	26.5	22.5	24.0	23.5	20.5	22.0	22.5	19.5	21.0	---	---	---
29	25.5	22.0	24.0	25.0	20.5	22.5	23.0	20.0	21.5	---	---	---
30	26.0	22.0	24.0	26.0	21.0	23.0	22.5	20.5	21.0	---	---	---
31	---	---	---	---	---	---	21.0	19.0	19.5	---	---	---
MONTH	27.0	13.5	20.0	26.5	18.5	22.5	26.5	16.0	21.5	23.0	17.0	19.0
YEAR	27.0	1.0	13.0									

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	44	122	52	225	53	269	91	509	32	108	79	185
2	41	112	130	569	100	491	68	382	27	93	69	170
3	110	443	46	202	67	329	66	371	29	104	31	82
4	83	334	45	200	52	251	41	229	41	151	27	70
5	54	210	58	269	52	257	73	412	76	283	53	132
6	40	131	58	280	33	151	82	463	115	428	126	313
7	22	26	51	252	44	153	87	493	34	129	68	169
8	41	59	86	418	33	84	71	395	27	101	21	52
9	91	238	50	246	69	131	72	399	32	125	20	49
10	59	152	51	255	53	93	85	470	62	246	22	56
11	46	120	56	271	32	51	78	423	44	170	390	1070
12	43	111	67	318	34	56	72	391	48	188	500	1380
13	40	55	64	304	47	87	80	454	34	132	142	387
14	32	83	60	280	79	206	78	440	27	106	810	2210
15	406	1230	63	321	139	533	74	410	26	104	760	2280
16	123	435	56	301	121	519	67	365	87	355	620	1790
17	104	385	53	283	82	356	90	493	40	164	1120	3010
18	600	2320	54	287	72	323	80	438	34	137	1710	4710
19	1240	4750	67	346	70	319	64	342	33	113	1140	3040
20	230	845	49	245	141	712	62	331	21	66	2380	6420
21	260	934	22	116	161	891	96	524	31	97	1180	3280
22	61	211	35	185	149	837	69	376	24	74	545	1490
23	50	167	38	197	316	1770	73	331	42	128	535	1440
24	72	259	26	135	150	855	40	147	130	393	320	843
25	87	329	39	205	103	598	34	121	27	79	149	397
26	50	198	59	311	83	480	37	131	28	84	114	243
27	168	717	56	293	102	567	28	99	38	105	161	235
28	94	406	48	253	97	540	36	127	27	64	218	385
29	140	624	48	246	67	371	38	133	---	---	120	191
30	102	452	56	283	67	373	41	139	---	---	275	415
31	70	302	---	---	101	559	34	116	---	---	280	424
TOTAL	---	16760	---	8096	---	13212	---	10454	---	4327	---	36918

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	57	83	415	1250	1880	13500	6880	54300	280	552	309	667
2	44	53	1840	9540	550	3820	37000	400000	1530	2850	251	564
3	50	61	2210	11000	720	5310	11400	61600	600	1050	261	598
4	41	52	960	6250	2460	23400	3100	13400	218	353	850	2040
5	41	53	400	2270	790	5500	2900	11000	133	208	3800	11600
6	30	38	285	1230	350	2620	408	1320	253	420	13200	72000
7	29	35	260	885	598	5780	820	2100	349	560	9850	39400
8	41	44	271	746	560	6080	710	1530	209	273	7480	37100
9	27	29	185	462	570	6370	630	1190	247	329	5600	25100
10	27	27	163	340	530	5580	6800	12900	7100	10900	5200	19000
11	42	37	96	161	434	3980	18600	55200	8750	20800	3500	12200
12	25	21	124	183	435	3510	17200	74300	8000	25500	3750	12400
13	38	37	60	77	241	1680	12000	55100	1140	3910	3250	10800
14	158	151	51	52	239	1370	7000	52900	990	3020	1530	5290
15	64	63	50	31	133	625	11800	86000	900	2340	1350	4960
16	99	110	125	114	143	490	19500	174000	1020	2440	940	3730
17	60	69	1940	3770	133	370	14200	95900	1240	2760	690	2460
18	52	56	1950	3590	73	194	3150	16200	1300	2910	810	3040
19	1980	3720	190	290	118	319	3560	14400	790	1930	1730	6590
20	1700	3490	53	69	50	110	1700	5510	565	1200	600	2150
21	550	1030	70	114	68	150	970	2620	360	754	495	1750
22	210	351	50	89	84	187	400	756	260	498	360	1250
23	176	267	42	69	62	131	245	397	260	463	370	1290
24	141	230	35	55	44	80	140	189	235	424	860	3380
25	226	372	44	61	31	43	148	208	198	381	2000	7070
26	193	388	42	66	41	51	470	761	1910	4150	1130	4000
27	360	892	185	367	93	133	4280	9240	360	739	488	1710
28	312	767	318	845	37	66	6040	23600	1650	3660	299	1030
29	445	1000	558	2610	40	74	1300	4210	1590	3300	350	1200
30	278	661	522	3200	49	100	450	1090	325	702	252	837
31	---	---	1770	10700	---	---	305	659	266	580	---	---
TOTAL	---	14187	---	60486	---	91623	---	1232580	---	99956	---	295206

TOTAL LOAD FOR YEAR: 1883805 TONS.

09371010 SAN JUAN RIVER AT FOUR CORNERS, CO

LOCATION.--Lat 37°00'20", long 109°02'00", SE¼NE¼ sec.21, T.32 N., R.20 W., Montezuma County, Hydrologic Unit 14080201, on left bank 1,300 ft (396 m) upstream from bridge on Colorado Highway 40, 0.1 mi (0.16 km) north of New Mexico-Colorado State Line, 1.0 mi (1.6 km) east of Four Corners monument, 3.0 mi (4.8 km) downstream from Mancos River, and at mile 187.2 (301 km).

DRAINAGE AREA.--14,600 mi^2 (37,810 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,900 ft (1,494 m), from topographic map.

REMARKS.--Water-discharge records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft^3/s (479 m^3/s) May 29, 1979, gage height, 6.25 ft (1.905 m^3/s); maximum gage height, 14.43 ft (4.398 m) Dec. 12, 1978 (backwater from ice); minimum 110 ft^3/s (3.11 m^3/s) Aug. 19, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,960 ft^3/s (140 m^3/s) at 0430 hours July 16, gage height, 3.92 ft (1.195 m), no peak above base of 6,000 ft^3/s (170 m^3/s); minimum daily, 428 ft^3/s (12.1 m^3/s) May 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1100	1620	1700	2090	1420	937	693	1090	2300	1260	728	988
2	1070	1590	1690	2080	1400	949	656	1560	2350	3620	745	1040
3	1230	1580	1730	2100	1370	1040	599	1900	2310	2020	703	1110
4	1450	1600	1710	2100	1380	1080	622	2010	2890	1660	644	1040
5	1430	1610	1720	2100	1390	1020	630	2150	2540	1430	564	1740
6	1290	1660	1780	2100	1390	1010	637	1570	2270	1250	516	1980
7	954	1650	1410	2100	1390	996	626	1290	2840	1020	651	1550
8	581	1630	1140	2090	1350	1020	580	1050	3280	875	580	1320
9	1020	1620	884	2050	1400	1010	568	904	3570	791	549	1620
10	1100	1600	831	2080	1460	1020	565	873	3430	780	603	1220
11	1110	1590	799	2080	1430	1040	533	723	3210	1260	855	1220
12	1140	1570	788	2080	1400	1120	505	643	2960	1780	1490	1250
13	946	1560	845	2130	1400	1120	507	583	2680	1980	2010	1190
14	945	1550	991	2140	1420	1100	527	522	2290	2840	1570	1260
15	1300	1620	1340	2090	1440	1160	520	447	1920	2860	1300	1240
16	1510	1720	1760	2110	1460	1180	544	428	1530	3350	1500	1280
17	1640	1670	1730	2130	1480	1120	564	593	1210	2500	1360	1180
18	1630	1640	1700	2120	1440	1110	548	767	1030	2000	1200	1140
19	1810	1640	1740	2160	1360	1070	708	706	1080	1620	1250	1110
20	1640	1610	1850	2140	1160	1050	866	625	956	1310	1150	1080
21	1640	1650	2030	2110	1140	1050	843	626	882	1070	1000	1080
22	1560	1670	2010	2040	1140	1080	790	729	872	830	980	1060
23	1520	1600	1980	1950	1130	1040	718	709	837	715	822	1040
24	1490	1630	2010	1440	1130	1030	718	696	766	617	742	1060
25	1570	1700	2000	1420	1130	990	716	652	684	644	713	1190
26	1510	1710	2020	1450	1140	998	775	648	578	704	789	1150
27	1550	1640	2010	1430	1160	665	947	721	588	961	837	975
28	1640	1670	2050	1420	999	705	1060	943	686	1480	822	1050
29	1610	1650	2070	1430	---	779	972	1490	736	1130	1050	1000
30	1660	1680	2080	1440	---	724	913	2240	857	902	900	950
31	1600	---	2080	1420	---	699	---	2050	---	794	1170	---
TOTAL	42246	48930	50478	59620	36909	30912	20450	31938	54132	46053	29793	36113
MEAN	1363	1631	1628	1923	1318	997	682	1030	1804	1486	961	1204
MAX	1810	1720	2080	2160	1480	1180	1060	2240	3570	3620	2010	1980
MIN	581	1550	788	1420	999	665	505	428	578	617	516	950
AC-FT	83790	97050	100100	118300	73210	61310	40560	63350	107400	91350	59090	71630

CAL YR 1980	TOTAL	1010657	MEAN	2761	MAX	9250	MIN	581	AC-FT	2005000
WTR YR 1981	TOTAL	487574	MEAN	1336	MAX	3620	MIN	428	AC-FT	967100

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH. (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT											
31...	1300	1600	621	8.5	16.5	10.0	10.9	220	110	62	15
NOV											
26...	1215	1730	570	8.5	7.5	5.0	11.8	190	77	53	13
DEC											
16...	1115	1770	572	7.9	7.0	5.0	11.7	200	88	56	14
JAN											
20...	1500	2140	480	8.2	13.0	5.5	11.4	170	73	49	11
FEB											
24...	1200	1160	610	8.9	14.0	8.0	14.8	220	110	62	15
MAR											
24...	1145	1030	718	8.0	17.5	12.5	9.0	230	120	67	15
APR											
21...	1445	850	862	8.0	24.0	18.5	7.7	290	160	83	19
MAY											
27...	1215	736	847	8.3	28.0	21.0	8.0	280	150	80	19
JUN											
29...	1400	764	640	8.3	32.5	26.0	8.6	230	120	66	15
JUL											
21...	1200	1080	580	7.9	36.0	24.0	7.2	210	90	66	11
AUG											
25...	1415	722	643	8.5	33.5	26.0	7.3	230	110	67	15
SEP											
09...	1200	1620	565	7.8	25.0	19.0	7.3	190	82	62	9.1

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
OCT											
31...	46	1.4	2.6	130	4	110	--	170	12	.3	7.7
NOV											
26...	35	1.1	1.9	130	3	110	--	150	12	.3	5.1
DEC											
16...	40	1.2	2.4	130	0	110	--	170	12	.5	8.3
JAN											
20...	38	1.3	1.9	120	0	95	--	140	8.8	.4	9.3
FEB											
24...	50	1.5	2.1	110	13	110	--	200	12	.3	4.1
MAR											
24...	64	1.8	2.7	130	0	110	--	280	13	.3	8.7
APR											
21...	74	1.9	3.3	160	0	130	--	290	17	.6	8.5
MAY											
27...	67	1.7	2.8	160	0	130	--	280	3.4	.5	4.3
JUN											
29...	48	1.4	2.8	130	0	110	--	200	15	.3	5.1
JUL											
21...	41	1.3	6.3	150	0	120	100	190	10	.3	9.9
AUG											
25...	52	1.6	2.7	130	6	120	--	200	15	.4	8.6
SEP											
09...	45	1.5	3.6	130	0	110	--	170	12	.4	11

SAN JUAN RIVER BASIN
09371010 SAN JUAN RIVER AT FOUR CORNERS, CO--Continued
WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT											
31...	403	382	--	--	--	--	100	10	3	--	--
NOV											
26...	362	338	.31	.020	1.1	.060	80	10	3	6.3	1.0
DEC											
16...	370	369	--	--	--	--	60	10	5	--	--
JAN											
20...	300	316	--	--	--	--	50	30	5	--	--
FEB											
24...	402	412	.17	.040	.62	.080	40	50	6	4.4	.7
MAR											
24...	468	517	--	--	--	--	70	10	8	--	--
APR											
21...	607	574	--	--	--	--	90	10	4	--	--
MAY											
27...	565	536	.46	.050	1.1	.290	120	10	5	6.7	--
JUN											
29...	416	418	--	--	--	--	70	10	3	--	--
JUL											
21...	381	395	--	--	--	--	200	20	2	--	--
AUG											
25...	424	434	.20	.050	.95	.200	80	11	3	2.4	.7
SEP											
09...	376	379	--	--	--	--	60	24	3	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
OCT											
31...	1300	--	--	--	--	--	--	100	--	--	--
NOV											
26...	1215	1	1	100	50	0	<1	80	0	<1	0
DEC											
16...	1115	--	--	--	--	--	--	60	--	--	--
JAN											
20...	1500	--	--	--	--	--	--	50	--	--	--
FEB											
24...	1200	--	--	--	--	--	--	40	--	--	--
MAR											
24...	1145	--	--	--	--	--	--	70	--	--	--
APR											
21...	1445	--	--	--	--	--	--	90	--	--	--
MAY											
27...	1215	10	2	100	70	0	<1	120	2	<1	10
JUN											
29...	1400	--	--	--	--	--	--	70	--	--	--
JUL											
21...	1200	--	--	--	--	--	--	200	--	--	--
AUG											
25...	1415	--	--	--	--	--	--	80	--	--	--
SEP											
09...	1200	--	--	--	--	--	--	60	--	--	--

09371010 SAN JUAN RIVER AT FOUR CORNERS, CO--Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI) (01132)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
OCT											
31...	--	--	--	1700	10	--	--	--	--	100	3
NOV											
26...	0	14	4	1400	10	12	0	10	20	60	3
DEC											
16...	--	--	--	2700	10	--	--	--	--	160	5
JAN											
20...	--	--	--	1600	30	--	--	--	--	130	5
FEB											
24...	--	--	--	370	50	--	--	--	--	30	6
MAR											
24...	--	--	--	9400	10	--	--	--	--	280	8
APR											
21...	--	--	--	14000	10	--	--	--	--	600	4
MAY											
27...	0	14	2	6300	10	4	1	40	40	140	5
JUN											
29...	--	--	--	330	10	--	--	--	--	30	3
JUL											
21...	--	--	--	31000	20	--	--	--	--	740	2
AUG											
25...	--	--	--	6100	11	--	--	--	--	230	3
SEP											
09...	--	--	--	99000	24	--	--	--	--	2800	3

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR) (01082)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT										
31...	--	--	--	--	--	--	--	--	--	--
NOV										
26...	.2	.1	2	0	0	2	320	510	40	9
DEC										
16...	--	--	--	--	--	--	--	--	--	--
JAN										
20...	--	--	--	--	--	--	--	--	--	--
FEB										
24...	--	--	--	--	--	--	--	--	--	--
MAR										
24...	--	--	--	--	--	--	--	--	--	--
APR										
21...	--	--	--	--	--	--	--	--	--	--
MAY										
27...	.1	.0	9	1	8	6	1000	1000	60	6
JUN										
29...	--	--	--	--	--	--	--	--	--	--
JUL										
21...	--	--	--	--	--	--	--	--	--	--
AUG										
25...	--	--	--	--	--	--	--	--	--	--
SEP										
09...	--	--	--	--	--	--	--	--	--	--

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
AUG									
25...	1415	<9.6	16	<5.2	9.5	<5.0	9.0	.09	3.0

09371010 SAN JUAN RIVER AT FOUR CORNERS, CO--Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)
OCT										
31...	1300	1600	10.0	181	--	--	--	--	--	--
NOV										
26...	1215	1730	5.0	246	--	--	--	--	--	--
DEC										
16...	1115	1770	5.0	280	--	--	--	--	--	--
JAN										
20...	1500	2140	5.5	233	--	--	--	--	--	--
FEB										
24...	1200	1160	8.0	39	--	--	--	--	--	--
MAR										
24...	1145	1030	12.5	594	--	--	--	--	--	--
APR										
21...	1445	850	18.5	802	--	--	--	--	--	--
MAY										
27...	1215	736	21.0	--	97	1	1	17	82	100
JUN										
29...	1400	764	26.0	32	--	--	--	--	--	--
JUL										
15...	1315	3020	23.5	11200	--	--	--	--	--	--
21...	1200	1080	24.0	2000	--	--	--	--	--	--
AUG										
25...	1415	722	26.0	393	--	--	--	--	--	--
SEP										
09...	1200	1620	19.0	7930	--	--	--	--	--	--
22...	1300	1050	19.5	1570	--	--	--	--	--	--

09379500 SAN JUAN RIVER NEAR BLUFF, UT

Location.--Lat 37°08'49", long 109°51'51", in SE¼NE¼NW¼ sec.7, T.42 S., R.19 E., San Juan County, Hydrologic Unit 14080205, 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 mi^2 (60,000 km^2), approximately.

PERIOD OF RECORD.--October 1914 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1213: 1940. WSP 1313: 1917, 1929. WSP 1343: 1945.

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.

REMARKS.--Records good. Diversions for irrigation of approximately 200,000 acres (810 km^2) above station. No diversion between station and mouth of river. Flow regulated by Navajo Reservoir since June 28, 1962 (see station 09355100). Water quality records for the current year are published in Water Resources Data for Utah.

AVERAGE DISCHARGE.--67 years, 2,538 ft^3/s (71.88 m^3/s), 1,839,000 acre-ft/yr (2.27 km^3/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD (1914-17 AND SINCE 1927).--Maximum discharge, 70,000 ft^3/s (1,980 m^3/s) Sept. 10, 1927, gage height, 32.0 ft (9.75 m) from rating curve extended above 31,000 ft^3/s (787 m^3/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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 6, 1911, which is greatest known at Shiprock, NM, probably exceeded that of Sept. 10, 1927 at this station but stage was not accurately determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,260 ft^3/s (262 m^3/s) July 17, gage height, 9.95 ft (3.033 m), no other peak above base of 8,000 ft^3/s (227 m^3/s); minimum, 453 ft^3/s (12.8 m^3/s) May 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1180	1690	1780	1010	1150	980	685	859	2120	770	866	1390
2	1150	1680	1770	1110	1130	923	673	972	2390	1690	804	1030
3	1100	1660	1740	1130	1130	959	643	1350	2350	3240	817	960
4	1220	1640	1720	1110	1130	1020	571	1710	2450	1900	749	964
5	1460	1660	1700	982	1110	1060	572	1860	2900	1610	681	1060
6	1430	1670	1710	983	987	980	603	1860	2390	1450	601	3960
7	1330	1730	1480	1000	856	969	606	1460	2300	1280	525	2280
8	1070	1710	1030	1030	857	985	586	1260	2870	1070	600	1740
9	633	1690	840	1010	800	986	569	1050	3230	925	605	1530
10	900	1690	700	1030	950	977	540	931	3370	1270	537	1970
11	1110	1700	660	985	1020	980	535	928	3240	1120	689	1600
12	1130	1680	660	1090	1070	1020	503	774	2960	1630	926	1490
13	1160	1670	800	1120	1010	1110	471	675	2740	2350	1670	1420
14	1090	1710	1100	1120	930	1110	462	617	2570	3930	1470	1350
15	976	1680	1500	1120	927	1110	535	552	2220	3330	1350	1440
16	1340	1740	1640	1100	966	1150	528	518	1890	4340	1140	1410
17	1530	1810	1700	1100	1160	1190	537	459	1560	4670	1070	1420
18	1650	1800	1710	1100	1310	1100	544	626	1310	3260	944	1320
19	1630	1800	1720	1040	1450	1090	674	893	1110	2210	883	1280
20	1730	1840	1750	1040	1260	1070	694	815	1130	1870	923	1260
21	1590	1730	1830	1100	1220	1040	886	727	1060	1500	903	1220
22	1590	1800	1980	1140	1230	1030	865	690	921	1250	827	1190
23	1540	1840	1980	1110	1260	1040	792	780	903	981	832	1160
24	1540	1820	1980	1070	1150	970	736	793	888	865	751	1180
25	1550	1850	1980	1090	1150	946	704	753	814	743	728	1170
26	1620	1850	1990	1110	1120	926	698	695	704	774	698	1280
27	1580	1820	2000	1090	1140	967	704	648	572	801	718	1270
28	1640	1820	2010	1140	1150	728	833	725	524	995	812	1240
29	1670	1840	2060	1170	---	652	969	912	580	1480	762	1200
30	1680	1790	1010	1190	---	793	901	1370	670	1190	930	1150
31	1690	---	1010	1210	---	720	---	2120	---	976	867	---
TOTAL	42509	52410	47540	33630	30623	30581	19619	30382	54736	55470	26678	42934
MEAN	1371	1747	1534	1085	1094	986	654	980	1825	1789	861	1431
MAX	1730	1850	2060	1210	1450	1190	969	2120	3370	4670	1670	3960
MIN	633	1640	660	982	800	652	462	459	524	743	525	960
AC-FT	84320	104000	94300	66710	60740	60660	38910	60260	108600	110000	52920	85160

CAL YR 1980 TOTAL 1100509 MEAN 3007 MAX 9400 MIN 633 AC-FT 2183000
WTR YR 1981 TOTAL 467112 MEAN 1280 MAX 4670 MIN 459 AC-FT 926500

09386900 RIO NUTRIA NEAR RAMAH, NM

LOCATION.--Lat 35°16'57", long 108°33'10", in NW¼SW¼ sec.8, T.12 N., R.16 W., McKinley County, Hydrologic Unit 15020004, on Zuni Indian Reservation, on left bank 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 mi^2 (185 km^2).

PERIOD OF RECORD.--October 1969 to current year.

REVISED RECORDS.--WDR NM-78-1: 1977.

GAGE.--Water-stage recorder and concrete control. Concrete control raised 1.0 ft (0.305 m) June 6, 1975. Altitude of gage is 6,860 ft (2,091 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--12 years, 6.23 ft^3/s (0.176 m^3/s), 4,510 acre-ft/yr (5.56 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 782 ft^3/s (22.1 m^3/s) Apr. 14, 1973, gage height, 5.58 ft (1.701 m), from rating curve extended above 470 ft^3/s (13.3 m^3/s); no flow Oct. 1-20, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50 ft^3/s (1.4 m^3/s), revised, and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
July 16	1730	80	2.27	3.48	1.061	Aug. 9	2015	*644	18.2	5.60	1.707
Aug. 1	2215	153	4.33	3.88	1.183						

Minimum daily discharge, 0.07 ft^3/s (0.002 m^3/s) Oct. 1-3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.24	.24	.30	.33	.43	6.5	.18	.12	.12	12	.24
2	.07	.27	.20	.31	.29	.59	5.8	.17	.12	.12	5.2	.17
3	.07	.27	.20	.36	.29	.74	5.1	.15	.12	.11	.27	.15
4	.08	.24	.21	.35	.30	.69	9.1	.13	.12	.11	.14	.15
5	.08	.21	.22	.37	.29	.59	8.6	.11	.12	.10	.11	.60
6	.08	.21	.25	.37	.29	.80	9.5	.09	.12	.10	.10	.59
7	.08	.21	.46	.35	.30	.75	6.7	.09	.11	.12	.10	.27
8	.08	.21	.39	.35	.26	.57	3.6	.09	.10	.12	.10	.27
9	.08	.18	.28	.37	.29	1.1	2.3	.09	.10	.12	44	.27
10	.09	.18	.23	.34	.31	1.2	1.8	.08	.10	.12	7.2	.27
11	.09	.18	.22	.35	.28	1.0	1.5	.08	.09	.12	.61	.27
12	.09	.18	.22	.40	.29	.88	1.2	.08	.10	.12	.28	.29
13	.10	.20	.32	.42	.34	.62	4.1	.08	.10	.12	.20	.31
14	.10	.21	.43	.41	.38	.77	3.2	.08	.10	.12	.14	.31
15	.11	.21	.35	.39	.43	1.6	2.4	.09	.10	.13	.11	.34
16	.13	.21	.32	.39	.41	2.9	1.9	.10	.10	5.3	.10	.36
17	.15	.21	.33	.40	.47	1.8	1.4	.11	.10	.47	.10	.40
18	.15	.20	.35	.39	.49	1.4	1.6	.10	.10	.22	.11	.44
19	.15	.16	.32	.38	.46	1.2	3.8	.10	.10	.16	.10	.50
20	.15	.16	.29	.36	.56	1.9	2.1	.09	.10	.14	.10	.50
21	.18	.17	.31	.34	.47	1.7	1.5	.09	.10	.13	.10	.50
22	.18	.16	.30	.31	.33	1.8	1.0	.09	.10	.10	.14	.51
23	.18	.15	.32	.30	.31	1.8	.61	.10	.10	.10	.12	.60
24	.18	.18	.29	.32	.31	2.1	.47	.10	.09	.11	.10	.68
25	.21	.18	.27	.33	.26	2.1	.40	.10	.09	.10	.13	.63
26	.21	.18	.28	.29	.32	1.5	.32	.10	.10	.10	.14	.60
27	.28	.18	.34	.28	.35	1.6	.24	.10	.10	.10	.11	.60
28	.27	.17	.35	.31	.36	1.6	.21	.10	.10	.10	.20	.63
29	.25	.15	.35	.31	---	7.6	.21	.10	.09	.10	.24	.60
30	.24	.15	.34	.31	---	9.9	.18	.12	.12	.10	.14	.62
31	.24	---	.33	.37	---	7.4	---	.12	---	.10	.19	---
TOTAL	4.42	5.81	9.31	10.83	9.77	60.63	87.34	3.21	3.11	9.18	72.68	12.67
MEAN	.14	.19	.30	.35	.35	1.96	2.91	.10	.10	.30	2.34	.42
MAX	.28	.27	.46	.42	.56	9.9	9.5	.18	.12	5.3	44	.68
MIN	.07	.15	.20	.28	.26	.43	.18	.08	.09	.10	.10	.15
AC-FT	8.8	12	18	21	19	120	173	6.4	6.2	18	144	25

CAL YR 1980	TOTAL	8204.02	MEAN 22.4	MAX 342	MIN .04	AC-FT	16270
WTR YR 1981	TOTAL	288.96	MEAN .79	MAX 44	MIN .07	AC-FT	573

09386950 ZUNI RIVER ABOVE BLACK ROCK RESERVOIR, NM

LOCATION.--Lat 35°06'03", long 108°45'03", in NE¼ sec.17, T.10 N., R.18 W., McKinley County, Hydrologic Unit 15020004, on Zuni Indian Reservation, on left bank downstream from highway bridge on State Highway 36, 0.8 mi (1.3 km) upstream from flow line of Black Rock 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 mi^2 (2,100 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1969 to current year. Prior to October 1974 published as "above Zuni Reservoir".

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,480 ft (1,975 m), from topographic map.

REMARKS.--Water-discharge records good except those for winter periods, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--12 years, 13.0 ft^3/s (0.368 m^3/s), 9,420 acre-ft/yr (11.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,200 ft^3/s (147 m^3/s) Aug. 4, 1974, gage height, 6.61 ft (2.015 m), from rating curve extended above 670 ft^3/s (19.0 m^3/s) on basis of slope-area measurements at gage heights 4.05 ft (1.234 m), 3.94 ft (1.201 m), 5.16 ft (1.573 m), and 6.61 ft (2.015 m); no flow for many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft^3/s (4.2 m^3/s), revised, and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 29	1745	162	4.59	3.70	1.128	Aug. 10	0645	450	12.7	4.12	1.256
July 10	1615	617	17.5	4.29	1.308	Aug. 31	1430	195	5.52	3.77	1.149
July 31	1530	*2480	70.2	5.52	1.682	Sept. 5	1630	318	9.01	3.96	1.207

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.48	1.5	.53	1.7	2.1	1.2	.06	.00	11	.00
2	.00	.00	.45	1.8	.50	2.5	1.9	1.1	.18	.00	4.2	.00
3	.00	.00	1.0	1.7	.49	3.7	2.3	1.2	.11	.00	1.3	.00
4	.00	.00	.69	1.4	.56	4.2	3.8	.84	.06	.00	.06	.00
5	.00	.00	.79	1.2	.58	4.0	4.3	.58	.02	.00	.00	16
6	.00	.00	.93	1.0	.51	3.4	2.9	.49	.03	.00	.00	1.2
7	.00	.00	1.4	.85	.50	3.9	2.5	.57	.00	.00	.00	.08
8	.00	.00	1.7	1.3	.55	3.9	2.2	.65	.00	.00	.00	.00
9	.00	.00	1.6	1.1	.90	3.0	2.1	.79	.00	6.1	.66	.00
10	.00	.00	1.4	.85	.71	2.4	2.1	.74	.00	24	79	.00
11	.00	.04	.95	.85	.81	2.3	2.1	.70	.00	7.2	6.7	.00
12	.00	.11	.79	1.0	.75	2.2	2.1	.76	.00	13	1.3	.00
13	.00	.03	1.5	1.4	.89	2.0	3.8	.72	.00	1.4	.29	.00
14	.00	.01	2.0	1.3	1.4	2.6	3.3	.44	.00	.30	.10	.00
15	.00	.07	1.6	1.1	1.7	3.6	2.7	.11	.00	.13	.08	.54
16	.00	.22	1.2	.89	1.7	2.7	2.6	.15	.00	.06	.01	7.9
17	.00	.33	1.2	.93	1.5	2.1	2.5	.33	.00	.04	.00	2.2
18	.00	.37	.97	.88	1.3	1.8	2.4	.51	.00	.01	.00	.00
19	.00	.27	.89	.75	1.1	1.7	3.0	.36	.00	.00	.00	.00
20	.00	.19	.80	.68	.94	1.8	2.8	.17	.00	.00	.00	.00
21	.00	.22	.94	.67	.85	2.0	2.4	.09	.00	.00	.00	.00
22	.00	.32	1.1	.63	.66	1.9	2.3	.05	.00	.00	.00	.00
23	.00	.22	1.2	.59	.64	1.7	2.0	.03	.00	.00	.00	.04
24	.00	.47	1.0	.68	.69	1.5	1.9	.00	.00	.00	.00	.02
25	.00	.89	.84	.70	.63	1.6	1.8	.03	.00	.00	.00	.00
26	.00	.74	.96	.51	1.0	1.7	1.6	.06	.00	.00	.00	.00
27	.00	.45	2.1	.44	1.5	1.9	1.4	.04	.00	.00	.00	.00
28	.00	.43	1.8	.56	1.4	2.4	1.4	.02	.00	.00	.00	.00
29	.00	1.0	1.8	.74	---	3.8	1.4	6.9	.00	.00	.00	.00
30	.00	1.2	1.7	.77	---	4.2	1.3	.23	.00	.00	.00	.00
31	.00	---	1.5	.71	---	2.6	---	.05	---	79	5.8	---
TOTAL	.00	7.58	37.28	29.48	25.29	80.8	71.0	19.91	.46	131.24	110.50	27.98
MEAN	.000	.25	1.20	.95	.90	2.61	2.37	.64	.015	4.23	3.56	.93
MAX	.00	1.2	2.1	1.8	1.7	4.2	4.3	6.9	.18	79	79	16
MIN	.00	.00	.45	.44	.49	1.5	1.3	.00	.00	.00	.00	.00
AC-FT	.00	15	74	58	50	160	141	39	.9	260	219	55

CAL YR 1980	TOTAL	16471.97	MEAN	45.0	MAX	828	MIN	.00	AC-FT	32670
WTR YR 1981	TOTAL	541.52	MEAN	1.48	MAX	79	MIN	.00	AC-FT	1070

09386950 ZUNI RIVER ABOVE BLACK ROCK RESERVOIR, NM

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)
DEC												
12...	0850	.80	1020	--	2.0	310	7	--	72	31	100	2.5
MAR												
03...	1405	3.7	919	8.3	5.0	280	--	--	70	26	81	2.1
31...	1340	2.3	851	8.3	11.0	260	--	4.0	66	24	93	2.5
MAY												
04...	1400	.79	658	8.3	18.0	190	--	.00	41	22	73	2.3
JUN												
02...	1330	.21	578	7.7	21.0	160	--	6.0	46	10	63	2.2

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
DEC											
12...	10	300	180	38	.4	14	626	.03	.020	20	10
MAR											
03...	4.3	250	150	22	.3	12	516	.01	--	20	2
31...	3.7	260	160	19	.3	12	535	.07	--	20	1
MAY											
04...	3.3	240	89	17	.3	11	401	.04	--	<10	2
JUN											
02...	3.4	150	130	16	.3	4.9	364	.00	--	<10	<1

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
DEC						
12...	0850	.80	2.0	56	.12	90
JAN						
06...	1614	1.0	4.0	18	.05	84
MAR						
03...	1430	3.7	7.0	38	.38	90
31...	1340	2.3	11.0	64	.40	94
MAY						
04...	1400	.79	18.0	93	.20	--
JUN						
02...	1330	.21	21.0	71	.04	93

09395350 PUERCO RIVER NEAR CHURCH ROCK, NM

LOCATION.--Lat 35°36'04", long 108°35'12" in SE¼NW¼ sec.24, T.16N., R.17W., McKinley County, Hydrologic Unit 15020006, on right bank 100 ft (30.5 m) downstream from three 5 ft (1.5 m) CMC pipe bridge on dirt road 1 mi (1.6 km) northwest of State Highway 566, 2.7 mi (4.3 km) upstream from Hard Ground Canyon, 7.4 mi (12 km) upstream from South Fork, and 9.5 mi (15 km) northeast of Gallup.

DRAINAGE AREA.--205 mi^2 (531 km^2).

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,710 ft (2.045 m) from topographic map. Prior December 4, 1980 at site 1.7 mi (2.7 km) upstream at different datum.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 450 ft^3/s (12.7 m^3/s) July 16, 1979, gage height, 4.50 ft (1.372 m) site and datum then in use, from rating curve extended above 20 ft^3/s (0.57 m^3s) on basis of slope-area measurement of peak flow; minimum daily, 1.3 ft^3/s (0.04 m^3/s) May 19, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 370 ft^3/s (10.5 m^3/s) July 26, gage height, 2.90 ft (0.884 m) from rating curve extended above 15 ft^3/s (0.42 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 2.0 ft^3/s (0.06 m^3/s) Feb. 2,3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	9.0	6.0	10	3.0	8.1	7.0	6.0	8.7	22	18	9.4
2	12	8.0	7.0	8.7	2.0	8.1	4.0	7.0	7.4	6.8	20	5.7
3	14	7.0	8.0	10	2.0	22	10	8.0	9.4	6.1	9.4	4.5
4	10	7.0	9.4	11	7.4	37	9.0	8.1	6.8	5.7	6.8	4.9
5	8.9	8.0	7.4	10	10	31	8.0	8.7	7.4	6.1	7.4	16
6	14	8.0	7.4	10	10	19	8.0	9.4	7.4	5.3	6.1	9.4
7	14	9.0	8.7	4.2	4.9	19	6.0	11	5.7	5.7	6.8	5.7
8	12	9.0	9.4	4.0	6.1	12	6.0	14	5.3	7.4	12	5.7
9	12	8.0	8.1	4.0	4.5	27	7.0	27	4.2	12	4.9	6.8
10	11	8.0	12	4.0	5.7	9.4	6.0	15	4.9	13	4.9	6.8
11	11	7.0	10	5.0	24	7.4	7.0	10	6.1	11	6.1	6.8
12	10	7.0	9.4	6.0	15	8.0	8.0	6.0	5.3	5.3	6.8	5.7
13	10	6.0	6.1	8.0	6.1	10	11	3.5	5.7	5.7	6.8	6.1
14	10	6.0	6.8	5.0	9.4	8.5	10	6.8	6.8	10	6.1	5.7
15	12	6.0	6.1	6.0	8.1	10	9.0	16	6.8	5.0	6.8	6.8
16	10	5.0	6.8	6.0	9.4	8.3	9.0	17	5.7	3.7	5.7	5.7
17	12	5.0	6.8	5.0	8.1	9.8	8.0	16	4.9	3.7	5.7	3.3
18	10	5.0	8.1	4.0	9.4	10	9.0	15	4.5	4.2	5.7	3.3
19	12	7.0	14	4.0	9.4	8.0	10	12	4.5	2.5	5.7	3.7
20	15	7.0	14	3.0	8.1	8.1	7.0	10	4.2	2.7	5.7	4.2
21	12	6.0	14	3.0	7.4	10	7.0	10	5.7	2.1	5.7	5.3
22	12	6.0	12	6.0	16	8.0	8.0	9.4	5.3	2.3	6.1	4.9
23	12	8.0	12	6.0	8.7	6.1	10	11	4.2	2.1	5.7	5.7
24	12	8.0	13	5.0	8.1	5.7	10	12	4.2	2.1	6.1	8.1
25	12	7.0	14	5.0	8.7	22	10	11	4.9	3.1	5.7	4.9
26	15	7.0	11	8.0	9.4	16	10	8.7	6.8	110	6.1	5.3
27	13	5.0	9.4	3.0	9.4	11	10	8.7	4.2	38	14	4.5
28	12	5.0	12	3.0	8.7	6.8	10	7.4	5.3	28	2.1	4.2
29	12	5.0	9.4	3.0	---	6.8	11	8.1	4.9	16	2.3	3.9
30	12	5.0	8.7	3.0	---	5.7	12	8.7	5.7	12	2.3	3.9
31	10	---	10	3.0	---	6.0	---	9.4	---	15	9.4	---
TOTAL	367.9	204.0	297.0	175.9	239.0	384.8	257.0	330.9	172.9	374.6	222.9	176.9
MEAN	11.9	6.80	9.58	5.67	8.54	12.4	8.57	10.7	5.76	12.1	7.19	5.90
MAX	15	9.0	14	11	24	37	12	27	9.4	110	20	16
MIN	8.9	5.0	6.0	3.0	2.0	5.7	4.0	3.5	4.2	2.1	2.1	3.3
AC-FT	730	405	589	349	474	763	510	656	343	743	442	351

CAL YR 1980 TOTAL 3507.1 MEAN 9.58 MAX 51 MIN 1.2 AC-FT 6960
WTR YR 1981 TOTAL 3203.8 MEAN 8.78 MAX 110 MIN 2.0 AC-FT 6350

09395350 PUERCO RIVER NEAR CHURCH ROCK, NM

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1978 (discontinued).

REMARKS.--On page 541 of the 1980 "Water Resources Data for New Mexico" the correct period of record is July 1978 and table titles should read WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979.

09395500 PUERCO RIVER AT GALLUP, NM

LOCATION.--Lat 35°31'45", long 108°44'41", in NE¼SE¼ sec.16, T.15 N., R.18 W., McKinley County, Hydrologic Unit 15020006, near center of span on downstream side of Third Street bridge in Gallup, 0.8 mi (1.3 km) upstream from Gamerco Wash, 3.5 mi (5.6 km) downstream from Hogback, and 4.9 mi (7.9 km) downstream from South Fork.

DRAINAGE AREA.--558 mi^2 (1,450 km^2).

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--June 1940 to July 1946, June 1957 to August 1977 (annual maximum only), September 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,480 ft (1,975 m) from topographic map. Prior to September 1977 at site 2,000 ft (610 m) upstream at different datum.

REMARKS.--Water-discharge records poor.

AVERAGE DISCHARGE.--9 years (water years 1941-45, 1978-81), 9.42 ft^3/s (0.267 m^3/s), 6,820 acre-ft/yr (8.41 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft^3/s (340 m^3/s) July 17, 1972, gage height, 15.3 ft (4.663 m) site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 392 ft^3/s (11.1 m^3/s) at 1900 hours June 30, gage height, 4.30 ft (1.311 m), no peak above base of 1,000 ft^3/s (28 m^3/s); minimum daily, 0.70 ft^3/s (0.02 m^3/s) May 19-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	4.0	3.0	3.0	4.0	38	3.8	17	6.0	10	2.0	5.0
2	2.5	4.0	3.0	3.0	3.0	40	4.2	8.8	5.8	5.0	2.0	5.0
3	2.5	4.0	3.0	3.0	3.0	34	11	5.0	6.0	4.0	2.0	4.9
4	2.5	5.0	3.0	3.0	1.0	27	9.9	9.0	6.8	4.0	2.0	7.0
5	2.5	5.0	3.0	2.5	3.0	25	8.8	5.0	5.5	4.5	1.8	31
6	2.4	4.0	6.5	2.0	3.0	27	8.2	4.0	5.4	4.5	2.0	37
7	2.4	4.0	13	4.0	3.0	26	6.4	3.0	5.3	4.5	3.0	26
8	2.4	4.0	9.0	5.0	4.0	24	6.8	2.0	5.3	4.4	3.0	37
9	2.4	4.0	5.0	4.0	4.0	22	7.6	1.6	4.8	6.0	4.0	7.0
10	2.4	4.0	3.0	4.0	4.0	24	6.7	1.4	4.6	7.0	10	7.0
11	2.2	3.0	3.0	5.0	5.0	24	7.4	1.2	5.0	6.0	5.0	6.5
12	2.2	3.0	3.6	5.0	6.0	22	8.5	1.0	5.5	4.0	4.0	6.0
13	2.0	3.0	8.0	6.0	9.0	23	13	.90	4.0	3.0	3.0	6.0
14	3.0	3.0	7.0	5.0	19	25	11	1.0	3.1	2.0	3.0	5.0
15	18	2.4	6.0	8.0	18	17	9.5	2.0	6.3	2.0	3.0	5.0
16	6.5	2.5	5.0	8.0	17	10	9.6	3.0	8.1	3.0	4.0	5.0
17	3.0	2.5	4.9	6.0	16	7.6	8.7	3.6	8.3	4.0	4.0	4.0
18	2.4	2.3	4.7	5.0	15	13	9.1	2.4	7.9	4.0	5.0	4.0
19	2.4	2.5	5.0	5.0	13	14	11	.70	8.0	2.0	4.0	4.0
20	2.4	5.0	5.0	5.0	12	16	7.1	.70	8.4	2.0	4.0	7.0
21	2.0	4.0	5.0	4.0	4.6	19	8.0	.70	9.5	3.0	3.0	10
22	2.0	4.0	5.0	4.0	7.0	20	8.8	1.3	12	3.0	3.0	11
23	2.0	4.0	6.0	7.0	12	20	9.1	2.6	11	3.0	3.0	11
24	3.0	4.0	6.0	6.0	12	19	11	3.3	11	3.0	5.0	15
25	3.0	4.0	5.0	6.0	7.5	18	11	4.6	12	7.0	4.0	10
26	3.0	3.0	4.0	9.0	19	17	11	4.6	18	40	7.0	9.0
27	3.0	3.0	3.5	4.0	23	13	12	4.4	12	10	12	8.0
28	3.0	3.0	3.0	4.0	26	24	12	4.7	14	5.0	4.0	7.0
29	3.0	3.0	3.0	4.0	---	23	13	4.9	14	3.0	4.0	6.0
30	3.0	3.0	3.0	4.0	---	17	15	5.5	36	2.0	4.0	5.0
31	3.0	---	3.0	4.0	---	11	---	5.6	---	2.0	4.0	---
TOTAL	98.6	106.2	150.2	147.5	273.1	659.6	279.2	115.50	269.6	166.9	123.8	311.4
MEAN	3.18	3.54	4.85	4.76	9.75	21.3	9.31	3.73	8.99	5.38	3.99	10.4
MAX	18	5.0	13	9.0	26	40	15	17	36	40	12	37
MIN	2.0	2.3	3.0	2.0	1.0	7.6	3.8	.70	3.1	2.0	1.8	4.0
AC-FT	196	211	298	293	542	1310	554	229	535	331	246	618

CAL YR 1980 TOTAL 5239.70 MEAN 14.3 MAX 124 MIN 1.6 AC-FT 10390
WTR YR 1981 TOTAL 2701.60 MEAN 7.40 MAX 40 MIN .70 AC-FT 5360

LITTLE COLORADO RIVER BASIN
09395500 PUERCO RIVER AT GALLUP, NM
WATER-QUALITY RECORDS

PERIOD OF RECORD--Water years 1975-77, 1978 to current year.
REMARKS.--On page 544 of the 1980 "Water Resources Data for New Mexico" under DATA NOT PREVIOUSLY PUBLISHED, the correct titles should read: WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
DEC										
18...	1200	4.8	800	8.5	14.0	3.0	100	150	0	--
JAN										
07...	0830	.76	1100	8.4	6.5	.0	--	--	--	--
FEB										
04...	1145	.37	965	8.4	4.5	.0	--	150	0	--
APR										
01...	0830	3.2	1020	8.4	5.0	5.0	--	--	--	--
MAY										
04...	1730	9.6	955	8.9	23.0	20.0	160	160	--	.00
JUN										
02...	0900	4.6	1050	8.4	18.0	12.0	--	--	--	--
JUL										
08...	0930	6.9	990	8.4	25.0	20.0	--	--	--	--
AUG										
05...	0830	1.8	1050	8.5	25.5	20.0	--	160	--	.00
SEP										
03...	0830	4.9	925	8.4	25.0	20.0	--	160	--	.00

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
DEC											
18...	42	10	140	5.0	3.3	180	230	19	.5	8.9	571
JAN											
07...	--	--	--	--	--	--	--	--	--	--	--
FEB											
04...	44	10	150	5.3	2.6	--	260	18	.4	9.8	603
APR											
01...	--	--	--	--	--	--	--	--	--	--	--
MAY											
04...	46	11	200	6.9	5.0	250	280	26	.6	7.9	741
JUN											
02...	--	--	--	--	--	--	--	--	--	--	--
JUL											
08...	--	--	--	--	--	--	--	--	--	--	--
AUG											
05...	50	9.2	160	5.7	6.1	200	260	18	.9	9.7	635
SEP											
03...	47	9.4	160	5.9	6.0	180	260	20	.9	9.5	621

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
DEC										
18...	2.0	2.0	.770	--	--	2.00	.180	320	50	33
JAN										
07...	--	--	--	--	--	--	--	--	--	--
FEB										
04...	--	--	--	--	--	--	--	90	30	--
APR										
01...	--	--	--	--	--	--	--	--	--	--
MAY										
04...	3.2	3.1	.350	.18	3.7	.320	.250	320	20	7.7
JUN										
02...	--	--	--	--	--	--	--	--	--	--
JUL										
08...	--	--	--	--	--	--	--	--	--	--
AUG										
05...	--	--	--	--	--	--	--	270	160	--
SEP										
03...	--	--	--	--	--	--	--	110	55	--

09395500 PUERCO RIVER AT GALLUP, NM

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)
DEC										
18...	1200	10	3	--	320	0	0	40	0	56
MAY										
04...	1730	10	5	2300	320	0	0	90	0	110

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
DEC										
18...	0	50	56	0	.2	.0	37	30	240	10
MAY										
04...	9	20	110	0	.4	.0	40	40	400	10

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L) (80020)
DEC									
18...	1200	1100	360	110	300	100	290	.68	800
MAY									
04...	1730	2100	870	370	690	360	670	.33	1600

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
DEC										
18...	1200	4.8	3.0	3360	44	--	--	--	--	95
MAY										
04...	1730	9.6	20.0	11800	306	--	--	--	--	74
06...	1200	4.0	18.0	28100	303	71	81	99	100	--

09430500 GILA RIVER NEAR GILA, NM

LOCATION.--Lat 33°03'40", long 108°32'12", in NE¼NW¼ sec.30, T.14 S., R.16 W., Grant County, Hydrologic Unit 15040001, 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 mi^2 (4,828 km^2).

PERIOD OF RECORD.--April to December 1914, December 1927 to current year. Monthly discharge only December 1927 to September 1930, published in WSP 1313.

REVISED RECORDS.--WSP 1283: Drainage area. WSP 1313: 1944 (M), 1949 (M). WDR NM-78-1: 1977.

GAGE.--Water-stage recorder. Datum of gage is 4,655.8 ft (1,419.09 m) National Geodetic Vertical Datum of 1929, (river-profile survey). Prior to Dec. 31, 1928, at site 5 mi (8 km) upstream at different datum. Dec. 31, 1928, to Jan. 7, 1942, at site 200 ft (61 m) upstream at same datum.

REMARKS.--Records good. Diversions for irrigation of about 500 acres (2.0 km^2) above station. Several observations of water temperature were made during the year. National Weather Service satellite telemeter at station.

AVERAGE DISCHARGE.--54 years (water years 1928-81), 139 ft^3/s (3.936 m^3/s), 100,700 acre-ft/yr (124 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,400 ft^3/s (918 m^3/s) Dec. 18, 1978, gage height, 12.5 ft (3.81 m), from floodmark, from rating curve extended above 7,000 ft^3/s (200 m^3/s) on basis of slope-area measurement of peak flow; maximum gage height, 17.2 ft (5.24 m) from flood mark, Sept. 29, 1941; minimum, 14 ft^3/s (0.40 m^3/s) July 15, 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Other major floods occurred in November 1905, December 1906, and January 1916.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 862 ft^3/s (24.4 m^3/s) at 0015 hours Aug. 6, gage height, 2.54 ft (0.774 m) no other peak above base of 600 ft^3/s (17 m^3/s); minimum, 17 ft^3/s (0.48 m^3/s) June 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	57	60	60	55	61	63	74	38	186	132	72
2	48	57	60	60	55	62	55	90	38	144	201	74
3	53	55	58	60	52	79	64	107	39	91	185	68
4	60	55	58	60	53	84	67	115	39	67	161	68
5	59	56	58	60	53	84	65	109	39	49	302	79
6	49	57	57	61	52	83	65	102	38	41	458	79
7	48	55	57	61	52	78	62	94	37	57	226	74
8	47	55	57	63	49	75	60	85	35	268	161	68
9	47	55	57	64	56	71	59	76	33	243	118	68
10	48	55	57	63	62	70	62	70	30	233	109	68
11	46	55	55	63	57	69	66	65	26	162	226	65
12	46	55	55	66	54	70	68	61	27	124	218	65
13	46	56	57	71	52	77	69	58	25	163	193	57
14	52	57	60	70	52	74	71	57	23	202	147	57
15	54	58	60	70	52	72	73	56	22	129	169	53
16	56	59	61	68	53	70	75	53	21	113	142	53
17	57	60	59	68	52	69	78	52	21	114	127	100
18	53	59	59	68	53	66	83	49	21	120	262	92
19	52	58	59	68	51	67	85	50	21	121	240	92
20	55	58	60	68	53	67	81	46	21	106	167	89
21	58	58	60	67	53	67	79	44	19	86	139	79
22	58	58	60	65	51	69	77	40	19	101	118	67
23	53	59	61	63	54	68	74	42	18	78	96	63
24	56	60	61	63	58	62	72	42	18	72	83	63
25	57	60	60	62	60	67	70	41	20	61	77	60
26	57	60	60	63	63	64	68	42	21	67	74	52
27	57	59	59	62	62	65	67	40	31	84	72	46
28	57	58	60	60	60	65	67	38	137	115	85	46
29	57	59	61	60	---	68	65	36	47	90	79	46
30	57	60	60	58	---	67	67	37	58	100	74	46
31	57	---	60	58	---	67	---	38	---	107	74	---
TOTAL	1650	1723	1826	1973	1529	2177	2077	1909	982	3694	4915	2009
MEAN	53.2	57.4	58.9	63.6	54.6	70.2	69.2	61.6	32.7	119	159	67.0
MAX	60	60	61	71	63	84	85	115	137	268	458	100
MIN	46	55	55	58	49	61	55	36	18	41	72	46
AC-FT	3270	3420	3620	3910	3030	4320	4120	3790	1950	7330	9750	3980

CAL YR 1980	TOTAL	51742	MEAN	141	MAX	2790	MIN	28	AC-FT	102600
WTR YR 1981	TOTAL	26464	MEAN	72.5	MAX	458	MIN	18	AC-FT	52490

09430600 MOGOLLON CREEK NEAR CLIFF, NM
(Hydrologic bench-mark station)

LOCATION.--Lat 33°10'01", long 108°38'58", in SE¼SE¼ sec. 13, T.13 S., R.18 W., Grant County, Hydrologic Unit 15040001, on right bank 0.3 mi (0.5 km) downstream from Rain Creek, 0.8 mi (1.3 km) downstream from Gila Wilderness Boundary, 12 mi (19 km) upstream from mouth, and 14 mi (23 km) north of Cliff.

DRAINAGE AREA.--69 mi^2 (179 km^2).

WATER-DISCHARGE RECORDS

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.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--14 years, 29.2 ft^3/s (0.827 m^3/s), 21,160 acre-ft/yr (26.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,800 ft^3/s (306 m^3/s) Aug. 12, 1967, gage height, 13.7 ft (4.18 m), from floodmarks, from rating curve extended above 220 ft^3/s (6.23 m^3/s) on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 160 ft^3/s (4.5 m^3/s), and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
July 13	1630	347	9.83	3.21	0.978	Aug. 2	1900	*431	12.2	3.33	1.015
July 18	2015	381	10.8	3.29	1.003	Aug. 19	1815	428	12.1	3.26	0.994
July 26	1900	202	5.72	2.65	0.808						

No flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.2	1.7	1.3	1.8	3.7	5.7	22	.60	.90	30	.40
2	1.1	1.1	1.7	1.4	2.6	4.8	8.2	44	.60	.48	91	.25
3	1.1	1.1	1.7	1.4	2.1	20	10	22	.40	.19	98	.19
4	1.0	1.1	1.5	1.3	1.8	12	8.5	15	.40	.16	43	.43
5	.97	1.1	1.5	1.4	1.6	7.6	9.6	11	.20	.10	53	.65
6	.91	1.1	1.5	1.3	2.4	7.7	11	9.6	.00	.08	68	.60
7	.81	1.2	1.5	1.5	1.9	7.0	13	8.1	.00	1.1	44	.50
8	.82	1.2	1.4	1.6	1.6	7.3	15	6.7	.00	3.4	58	.46
9	.81	1.3	1.4	1.7	4.9	8.1	14	5.6	.00	14	40	.50
10	.77	1.4	1.3	1.7	4.0	9.0	13	4.9	.00	5.9	34	.57
11	.74	1.4	1.2	1.9	2.9	7.6	15	4.6	.00	2.8	26	.50
12	.76	1.3	1.3	2.9	2.8	9.3	14	3.9	.00	2.3	21	.41
13	.81	1.4	2.9	4.1	2.5	12	12	3.5	.00	67	16	.37
14	.93	1.5	2.5	3.5	2.7	12	17	3.0	.00	50	16	.36
15	1.7	1.7	1.8	3.4	2.8	9.4	17	2.6	.00	15	12	.37
16	1.5	1.7	1.7	2.6	2.7	8.1	16	2.5	.00	48	9.1	.45
17	1.3	1.7	1.6	2.5	2.6	8.5	16	2.4	.00	29	6.9	1.3
18	1.2	1.8	1.5	2.4	2.6	9.0	16	2.3	.00	62	12	2.0
19	1.2	1.8	1.4	2.2	2.5	9.1	13	2.1	.00	102	53	1.3
20	1.2	1.9	1.3	2.0	2.5	9.6	10	1.9	.00	33	39	1.1
21	1.2	1.7	1.3	2.0	2.5	8.6	9.2	1.6	.00	16	20	.99
22	1.2	1.7	1.4	1.8	2.4	6.4	8.5	1.5	.00	12	10	.88
23	1.2	1.8	1.4	1.8	2.3	6.0	8.1	1.4	.00	7.2	5.9	.92
24	1.1	1.8	1.4	1.8	2.2	7.8	7.7	1.3	.00	4.2	4.5	.98
25	1.1	1.7	1.3	1.8	2.0	9.4	7.4	1.2	.00	2.8	2.2	.91
26	1.1	1.6	1.4	1.6	2.4	10	7.8	1.1	.00	25	1.4	.86
27	1.1	1.7	1.3	1.5	3.3	11	8.0	1.1	.00	54	1.0	.81
28	1.2	1.8	1.3	1.5	2.8	9.3	7.4	1.0	.00	32	.80	.81
29	1.2	1.8	1.3	1.6	---	6.5	6.5	.94	.00	19	.70	.81
30	1.2	1.7	1.4	1.4	---	5.3	5.9	.80	.00	16	.60	.77
31	1.2	---	1.3	1.7	---	5.0	---	.80	---	26	.56	---
TOTAL	33.63	45.3	47.2	60.6	71.2	267.1	330.5	190.44	2.20	651.61	817.66	21.45
MEAN	1.08	1.51	1.52	1.95	2.54	8.62	11.0	6.14	.073	21.0	26.4	.72
MAX	1.7	1.9	2.9	4.1	4.9	20	17	44	.60	102	98	2.0
MIN	.74	1.1	1.2	1.3	1.6	3.7	5.7	.80	.00	.08	.56	.19
AC-FT	67	90	94	120	141	530	656	378	4.4	1290	1620	43

CAL YR 1980 TOTAL 10156.16 MEAN 27.7 MAX 686 MIN .00 AC-FT 20140
WTR YR 1981 TOTAL 2538.89 MEAN 6.96 MAX 102 MIN .00 AC-FT 5040

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
OCT										
07...	1200	.80	120	7.2	22.0	18.5	7.5	47	4	--
DEC										
11...	1230	1.2	124	7.3	15.0	4.0	11.4	45	0	--
FEB										
26...	1200	2.4	100	7.6	10.0	8.0	--	41	--	--
APR										
27...	1200	8.0	65	7.3	27.0	14.5	9.0	27	--	.00
AUG										
31...	1230	.56	120	7.8	27.0	22.5	7.4	45	--	.00

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT									
07...	14	2.8	7.0	.5	1.0	52	43	15	2.2
DEC									
11...	13	3.1	6.8	.4	.8	--	47	15	1.9
FEB									
26...	12	2.7	6.5	.4	.7	--	41	14	1.4
APR									
27...	8.5	1.5	5.1	.4	.7	--	30	1.1	.7
AUG									
31...	13	2.9	6.6	.5	1.1	--	52	<5.0	.8

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)
OCT									
07...	.4	19	101	87	.00	.00	--	--	--
DEC									
11...	.4	18	81	87	.00	.01	.030	.080	.45
FEB									
26...	.4	17	76	79	.00	.00	.040	.050	.37
APR									
27...	.3	17	74	53	.02	.02	.160	.080	.46
AUG									
31...	.3	22	95	--	<.09	.01	.080	.080	.33

DATE	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT									
07...	--	.030	.010	<10	3	--	--	--	.00
DEC									
11...	.48	.020	--	--	--	3.4	--	--	--
FEB									
26...	.41	.070	--	--	--	2.4	--	--	--
APR									
27...	.64	.020	--	17	2	--	3.4	.2	.00
AUG									
31...	--	.030	--	18	12	--	3.3	.1	<.01

09430600 MOGOLLON CREEK NEAR CLIFF, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)
OCT											
07...	1200	1	5	0	10	<1	0	<1	0	0	<3
APR											
27...	1200	2	1	0	20	<1	0	<1	10	0	<3
AUG											
31...	1230	1	2	100	21	<1	1	<1	20	2	<3

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)
OCT										
07...	60	<10	70	<10	7	<10	5	10	3	.0
APR										
27...	5	<10	10	17	1	<10	<4	0	2	.0
AUG										
31...	3	<10	40	18	3	<10	<4	10	12	.0

DATE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT										
07...	.0	<10	0	0	0	0	76	<3.0	80	<3
APR										
27...	.0	<10	0	0	0	0	41	<6.0	10	19
AUG										
31...	.0	<10	0	0	0	0	72	<6.0	10	4

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L) (80020)
OCT									
07...	1200	<1.1	<.4	1.5	<.4	1.4	<.4	.05	.08
APR									
27...	1200	<1.1	<.4	1.2	<.4	1.1	<.4	.03	.19
AUG									
31...	1230	<2.0	<.4	1.9	<.4	1.8	<.4	.02	.07

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39333)	CHLOR-DANE, TOTAL (UG/L) (39350)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)
OCT										
07...	1200	.00	0	.00	.0	.00	.0	.00	.0	.00
APR										
27...	1200	.00	0	.00	.0	.00	.0	.00	.0	.00
AUG										
31...	1230	.00	0	.00	.0	.00	.0	.00	.0	.00

GILA RIVER BASIN
09430600 MOGOLLON CREEK NEAR CLIFF, NM -- Continued
WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39368)	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DIAZINON, TOTAL (UG/L) (39570)	DIELDRIN TOTAL (UG/L) (39380)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)
OCT										
07...	.0	.00	.0	.00	.00	.0	.00	.00	.0	.00
APR										
27...	.2	.00	.0	.00	.00	.0	.00	.00	.0	.00
AUG										
31...	.0	.00	.0	.00	.00	.0	.00	.00	.0	.00

DATE	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	MALATHION, TOTAL (UG/L) (39530)	METHOXYCHLOR, TOTAL (UG/L) (39480)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	METHYL PARATHION, TOTAL (UG/L) (39600)
OCT										
07...	.00	.0	.00	.0	.00	.0	.00	.00	.0	.00
APR										
27...	.00	.0	.00	.0	.00	.0	.00	.00	.0	.00
AUG										
31...	.00	.0	.00	.0	.00	.0	.00	.00	.0	.00

DATE	METHYL TRITHION, TOTAL (UG/L) (39790)	PARATHION, TOTAL (UG/L) (39540)	TOXAPHENE, TOTAL (UG/L) (39400)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39403)	TOTAL TRITHION (UG/L) (39786)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PERTHANE TOTAL (UG/L) (39034)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
OCT										
07...	.00	.00	0	.0	.00	.00	.00	.00	.00	.00
APR										
27...	.00	.00	0	.0	.00	.00	.00	.00	.00	.00
AUG										
31...	.00	.00	0	.0	.00	.00	.00	.00	.00	.00

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT				
07...	1200	2	2	7
DEC				
11...	1230	7	7	1
FEB				
26...	1200	4	2	7
APR				
27...	1200	--	4	50
AUG				
31...	1230	--	77	69

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
01...	1140	1.2	18.0	0	.00	--
07...	1200	.80	18.5	0	.00	--
DEC						
11...	1230	1.2	4.0	2	.01	--
FEB						
26...	1200	2.4	8.0	1	.01	--
APR						
27...	1200	8.0	14.5	1	.02	--
AUG						
31...	1230	.56	22.5	3	.00	51

09431100 MANGAS CREEK BELOW MANGAS SPRINGS, NM

LOCATION.--Lat 32°50'48", long 108°30'57", in NW¼NE¼ sec.8, T.17S., R.16W., Grant County, Hydrologic Unit 15040002, 0.4 mi northwest of Mangas Springs, NM.

DRAINAGE AREA.--177 mi^2 (458 km^2).

PERIOD OF RECORD.--Water years 1970 to current year.

REMARKS.--Location formerly published as Lat 32°50'57", Long 108°31'13", in SE¼SW¼ sec.5, T.17S., R.16W., 0.1 mi (0.2 km) upstream from Blacksmith Canyon and 15 mi (24 km) southeast of Gila.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT								
15...	0850	4.3	610	8.1	--	13.5	250	66
NOV								
05...	1730	4.4	614	8.2	--	15.0	250	55
FEB								
11...	1330	3.9	606	8.3	12.5	17.0	250	65
MAR								
25...	1430	3.5	600	8.8	14.0	11.0	--	--
APR								
09...	1430	4.1	545	8.7	31.0	24.0	--	--
MAY								
12...	1845	3.3	600	8.1	28.0	21.0	240	--
JUN								
10...	1630	2.8	550	8.3	36.0	27.0	--	--
JUL								
07...	1455	4.0	595	8.4	31.0	24.0	--	--
AUG								
12...	1300	5.4	640	8.0	31.0	26.0	270	--
SEP								
10...	1430	3.6	499	8.3	28.0	25.0	--	--

DATE	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT									
15...	--	77	13	27	.8	2.2	180	--	88
NOV									
05...	--	75	14	29	.8	2.9	190	--	85
FEB									
11...	--	75	14	29	.8	2.1	--	180	120
MAR									
25...	--	--	--	--	--	--	--	--	--
APR									
09...	--	--	--	--	--	--	--	--	--
MAY									
12...	70	73	14	27	.8	2.4	--	170	96
JUN									
10...	--	--	--	--	--	--	--	--	--
JUL									
07...	--	--	--	--	--	--	--	--	--
AUG									
12...	77	84	14	26	.7	3.9	--	190	96
SEP									
10...	--	--	--	--	--	--	--	--	--

GILA RIVER BASIN

09431100 MANGAS CREEK BELOW MANGAS SPRINGS, NM

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
OCT								
15...	14	.5	31	361	8	<10	2.3	.3
NOV								
05...	16	.5	31	368	50	<10	--	--
FEB								
11...	12	.4	29	390	40	20	--	--
MAR								
25...	--	--	--	--	--	--	--	--
APR								
09...	--	--	--	--	--	--	--	--
MAY								
12...	14	.4	29	358	90	40	--	--
JUN								
10...	--	--	--	--	--	--	--	--
JUL								
07...	--	--	--	--	--	--	--	--
AUG								
12...	22	.4	33	394	30	65	--	--
SEP								
10...	--	--	--	--	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)
OCT												
15...	0850	2	2	200	70	8	0	<1	10	0	9	2

DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT											
15...	<10	3	3	.1	.0	2	2	0	0	20	<3

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
15...	0850	4.3	13.5	13	.15	74

GILA RIVER BASIN
09431500 GILA RIVER NEAR REDROCK, NM
(National stream-quality accounting network, and radiochemical network station)

LOCATION.--Lat 32°43'37", long 108°40'30", in W½ sec.23, T.18 S., R.18 W., Grant County, Hydrologic Unit 15040002, 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 mi^2 (7,327 km^2).

WATER-DISCHARGE RECORDS

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" 1904-7.

REVISED RECORDS.--WSP 1213: 1906, 1911-15, 1931, 1936-37, 1939, 1941, 1944, 1945(P), 1946(M), 1947. WSP 1283: Drainage area. WSP 1926: 1955. WDR NM-78-1: 1977.

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.

REMARKS.--Water-discharge records good except those for February thru July, which are poor. Diversions for irrigation of about 5,000 acres (20 km^2) above station.

AVERAGE DISCHARGE.--65 years (water years 1906, 1909-10, 1913-55, 1963-81), 200 ft^3/s (5.664 m^3/s), 144,900 acre-ft/yr (179 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,800 ft^3/s (1,380 m^3/s) Dec. 19, 1978, gage height, 29.8 ft (9.08 m) in gage well, 34.1 ft (10.4 m) from floodmarks, from rating curve extended above 9,500 ft^3/s (269 m^3/s) on basis of slope-area measurement of peak flow; minimum, 2.2 ft^3/s (0.062 m^3/s) Aug. 5, 1947.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,470 ft^3/s (155 m^3/s) at 2200 hours Aug. 17, gage height, 11.15 ft (3.399 m), no other peak above base of 3,000 ft^3/s (85 m^3/s); minimum daily, 70 ft^3/s (0.20 m^3/s) June 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	55	61	65	52	58	48	50	20	190	180	73
2	39	59	75	65	52	59	46	60	21	150	592	69
3	36	82	57	69	60	70	46	70	19	100	516	60
4	38	66	51	71	55	80	45	67	18	70	263	58
5	43	57	53	74	55	75	45	63	19	50	280	64
6	31	58	58	71	55	77	47	58	17	45	581	66
7	36	53	54	69	55	78	49	56	16	60	466	66
8	33	46	53	65	51	77	42	54	17	280	612	70
9	43	60	54	69	55	76	38	50	18	270	288	80
10	29	49	53	67	64	76	39	50	16	250	366	98
11	28	46	63	75	57	75	40	45	14	200	276	81
12	27	51	58	80	59	76	41	43	12	140	258	77
13	28	54	73	73	64	78	44	40	11	250	272	73
14	41	53	76	62	67	80	43	38	10	270	163	64
15	56	53	56	62	60	80	42	39	10	160	145	48
16	60	58	49	70	66	80	45	39	10	190	160	53
17	67	61	54	71	53	82	46	39	10	180	561	72
18	69	72	61	63	46	80	45	40	11	200	422	79
19	61	70	64	64	45	78	44	38	10	250	316	91
20	69	63	68	70	43	74	45	35	10	180	308	101
21	69	56	52	72	42	78	47	33	9.0	100	208	97
22	69	62	55	69	43	78	48	32	8.0	110	166	83
23	73	70	60	68	47	79	49	30	7.0	90	112	73
24	76	63	63	60	50	78	49	28	7.5	80	97	67
25	75	65	60	67	55	76	48	27	7.0	70	77	67
26	77	63	66	68	60	70	48	28	9.0	90	71	69
27	77	64	64	66	58	68	47	25	25	160	93	67
28	78	58	66	60	56	60	46	20	50	140	75	62
29	72	57	62	51	---	55	45	18	80	130	64	59
30	52	57	55	54	---	55	44	20	90	110	65	52
31	53	---	65	65	---	50	---	22	---	130	67	---
TOTAL	1658	1781	1859	2075	1525	2256	1351	1257	581.5	4695	8120	2139
MEAN	53.5	59.4	60.0	66.9	54.5	72.8	45.0	40.5	19.4	151	262	71.3
MAX	78	82	76	80	67	82	49	70	90	280	612	101
MIN	27	46	49	51	42	50	38	18	7.0	45	64	48
AC-FT	3290	3530	3690	4120	3020	4470	2680	2490	1150	9310	16110	4240

CAL YR 1980	TOTAL	59110.0	MEAN	162	MAX	3240	MIN	20	AC-FT	117200
WTR YR 1981	TOTAL	29297.5	MEAN	80.3	MAX	612	MIN	7.0	AC-FT	58110

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT												
02...	0925	37	419	8.5	--	14.0	--	--	--	--	--	--
08...	1030	36	360	8.5	21.0	17.0	1.6	9.0	130	0	--	38
JAN												
13...	1100	73	385	8.4	8.0	9.0	13	10.4	130	0	--	38
MAR												
06...	1100	77	380	8.4	9.0	9.0	4.4	10.6	130	3	--	40
MAY												
04...	1300	67	355	8.1	28.0	21.0	140	7.4	120	--	.00	36
JUL												
02...	1200	210	300	8.1	26.5	24.5	840	14.8	97	--	.00	30
SEP												
07...	1300	66	380	8.2	29.0	22.5	50	7.9	120	--	.00	37

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
OCT												
02...	--	--	--	--	--	--	--	--	--	--	--	--
08...	8.1	35	1.3	2.7	150	--	40	15	2.3	33	267	264
JAN												
13...	7.9	33	1.3	1.9	--	--	38	14	2.2	30	267	251
MAR												
06...	8.0	35	1.3	1.8	--	130	37	18	2.1	29	239	249
MAY												
04...	7.0	35	1.4	2.5	--	130	37	18	2.1	34	236	252
JUL												
02...	5.4	29	1.3	3.4	--	100	8.0	44	2.3	31	234	214
SEP												
07...	7.5	33	1.4	2.9	--	150	16	17	2.3	38	253	244

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT												
02...	--	--	--	--	--	--	--	--	--	--	--	--
08...	.00	.00	.020	.020	.83	.85	.060	20	6	--	12	.7
JAN												
13...	.32	.32	.050	.090	.57	.94	.070	--	--	3.7	--	--
MAR												
06...	.00	.00	.030	.030	.51	.54	.050	30	5	--	6.4	.4
MAY												
04...	.37	.37	.090	.070	1.1	1.6	.540	40	6	--	5.4	1.5
JUL												
02...	.28	.26	.300	.150	2.1	2.7	.840	--	--	54	--	--
SEP												
07...	X.09	.02	.070	.030	.61	--	.200	13	11	--	1.7	2.3

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)
OCT										
08...	1030	2	2	0	40	0	<1	10	0	2
MAR										
06...	1100	4	4	100	30	0	<1	10	0	2
MAY										
04...	1300	4	3	200	40	0	<1	10	0	6
SEP										
07...	1300	3	3	100	39	0	<1	10	10	3

DATE	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)
OCT										
08...	<3	18	2	740	20	5	2	40	6	.0
MAR										
06...	<3	5	2	330	30	9	0	20	5	.0
MAY										
04...	<3	90	3	13000	40	15	4	530	6	.1
SEP										
07...	<3	16	2	5200	13	4	1	180	11	.2

DATE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT									
08...	.0	8	1	0	0	0	0	30	<3
MAR									
06...	.0	1	1	0	0	0	0	10	30
MAY									
04...	.0	11	1	0	0	0	0	70	20
SEP									
07...	.1	8	1	0	0	0	0	30	7

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L) (80020)
JAN										
13...	1100	<4.4	1.7	2.7	1.9	2.6	1.8	.03	2.3	2.3
JUL										
02...	1200	<4.8	170	4.7	140	4.5	130	.04	1.4	--

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT				
08...	1030	800	19	16
JAN				
13...	1100	--	24	91
MAR				
06...	1100	--	5	210
MAY				
04...	1300	--	800	720
JUL				
02...	1200	--	1000	750
SEP				
07...	1300	--	330	530

09431500 GILA RIVER NEAR REDROCK, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

DATE	OCT 8,80	JAN 13,81	MAR 6,81	MAY 4,81	JUL 2,81	SEP 7,81
TIME	1030	1100	1100	1300	1200	1300
TOTAL CELLS/ML	190	180	52	7600	1500	4700
DIVERSITY: DIVISION	0.0	1.3	0.0	0.4	0.7	0.1
.CLASS	0.0	1.3	0.0	0.4	0.7	0.1
..ORDER	1.3	3.0	1.5	2.0	2.5	1.2
...FAMILY	1.6	3.2	1.5	2.7	2.5	1.2
....GENUS	1.6	3.4	2.0	2.9	2.5	1.2

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)												
.BACILLARIOPHYCEAE												
..ACHNANTHALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	13#	25	200	3	--	-	--	-
....COCCONEIS	--	-	26	14	13#	25	1900#	25	140	9	130	3
..BACILLARIALES												
...NITZSCHIACEAE												
....NITZSCHIA	90#	47	13	7	13#	25	1000	13	280#	18	3500#	74
..EPITHEMIALES												
...EPITHEMIACEAE												
....EPITHEMIA	--	-	--	-	--	-	68	1	420#	27	--	-
..EUPODISCALES												
...COSCINODISCACEAE												
....CYCLOTELLA	13	7	13	7	--	-	--	-	--	-	44	1
..FRAGILARIALES												
...FRAGILARIACEAE												
....DIATOMA	--	-	--	-	--	-	540	7	280#	18	--	-
....SYNEDRA	--	-	13	7	--	-	--	-	--	-	44	1
..NAVICULALES												
...CYMBELLACEAE												
....CYMBELLA	--	-	--	-	--	-	610	8	--	-	--	-
...GOMPHONEMACEAE												
....GOMPHONEMA	13	7	13	7	13#	25	1800#	24	--	-	--	-
...NAVICULACEAE												
....GYROSIGMA	--	-	13	7	--	-	--	-	--	-	--	-
....NAVICULA	77#	40	26	14	--	-	740	10	140	9	910#	19
....NEIDIUM	--	-	--	-	--	-	68	1	--	-	--	-
....PINNULARIA	--	-	--	-	--	-	68	1	--	-	--	-
..SURIRELLALES												
...SURIRELLACEAE												
....CYMATOPLEURA	--	-	13	7	--	-	--	-	--	-	--	-
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHLOROCOCCACEAE												
....SCHROEDERIA	--	-	--	-	--	-	--	-	--	-	44	1
...SCENEDESMACEAE												
....SCENEDESMUS	--	-	--	-	--	-	540	7	280#	18	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	26	14	--	-	--	-	--	-	--	-
..ZYGNEMATALES												
...DESMIDIACEAE												
....COSMARIUM	--	-	--	-	--	-	--	-	--	-	44	1
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONADALES												
...CRYPTOCHRYSIDACEAE												
....CHROOMONAS	--	-	13	7	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	--	-	13	7	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

09431500 GILA RIVER NEAR REDROCK, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
02...	0925	37	14.0	70	7.0	99
08...	1030	36	17.0	27	2.6	97
16...	1035	58	12.0	95	15	98
28...	1105	78	10.0	36	7.6	97
JAN						
13...	1100	73	9.0	28	5.5	95
MAR						
06...	1100	77	9.0	14	2.9	64
MAY						
04...	1300	67	21.0	475	86	94
JUL						
02...	1200	210	24.5	2690	1530	98
SEP						
07...	1300	66	22.5	187	33	81

09432000 GILA RIVER BELOW BLUE CREEK, NEAR VIRDEN, NM

LOCATION.--Lat 32°38'53", long 108°50'43", in SE¼SW¼ sec.18, T.19 S., R.19 W., Grant County, Hydrologic Unit 15040002, 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 mi^2 (8,296 km^2), 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, AZ, 1914-15 and as Gila River at Fuller's Ranch, near Duncan, AZ, 1931-38.

REVISED RECORDS.--WSP 1283: Drainage area. WSP 1313: 1929, 1931-32(M).

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 (10 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. Since April 18, 1980, supplementary gage on left bank 800 ft (244 m) downstream at same datum.

REMARKS.--Records good except those above 300 ft^3/s (8.50 m^3/s) which are poor. Station is above all Duncan Valley diversions. Diversions for irrigation of about 6,200 acres (25 km^2) above station.

AVERAGE DISCHARGE.--54 years (water years 1927-81), 183 ft^3/s (5.183 m^3/s), 132,600 acre-ft/yr (163 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 58,700 ft^3/s (1,660 m^3/s) Dec. 19, 1978, gage height, 29.00 ft (8.839 m) from rating curve extended above 38,000 ft^3/s (1,080 m^3/s) on basis of slope-area measurement of peak flow; minimum, 1 ft^3/s (0.028 m^3/s) July 14, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,890 ft^3/s (53.5 m^3/s) at 200 hours Aug. 18, gage height, 6.00 ft (1.829 m) no peak above base of 1900 ft^3/s (54 m^3/s); minimum daily, 5.3 ft^3/s (0.15 m^3/s) June 23, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	58	75	64	64	62	60	61	29	187	144	65
2	52	58	75	65	62	60	58	81	26	174	280	62
3	51	62	76	65	64	65	53	88	22	119	200	57
4	51	64	79	66	65	69	52	85	21	102	250	70
5	51	61	79	66	65	71	53	82	22	90	224	57
6	50	61	77	65	65	71	57	75	18	60	398	54
7	48	61	75	65	64	73	57	74	18	50	424	65
8	48	59	75	64	64	74	57	68	19	72	398	65
9	50	60	75	63	64	74	54	68	21	250	314	65
10	50	60	77	63	64	73	52	64	20	211	279	71
11	46	60	76	63	65	73	49	61	16	186	374	77
12	46	60	74	67	64	74	47	58	14	198	242	60
13	46	63	72	69	64	75	48	56	11	194	254	60
14	46	62	67	66	66	77	48	52	10	247	204	60
15	48	64	71	62	66	78	46	51	10	206	184	60
16	50	65	75	63	66	80	49	49	9.6	191	187	50
17	50	65	75	65	65	80	49	49	8.4	191	202	80
18	50	69	74	65	62	75	49	49	9.0	188	597	60
19	50	71	72	65	61	70	48	49	8.4	182	256	70
20	50	73	70	65	59	70	51	46	7.8	182	232	80
21	50	71	72	65	58	70	54	42	6.5	142	191	100
22	50	70	73	65	57	70	54	40	5.9	116	162	80
23	50	73	72	65	60	70	56	41	5.3	109	133	70
24	55	71	71	65	61	70	54	39	5.9	81	119	60
25	55	74	68	60	61	70	54	36	5.3	78	110	51
26	55	74	67	60	60	69	54	38	5.9	74	94	50
27	55	75	65	60	60	65	54	35	6.5	166	87	45
28	55	75	67	60	61	62	53	30	7.8	143	84	44
29	55	75	67	62	---	62	53	28	121	142	71	41
30	55	75	64	62	---	62	51	26	94	103	65	37
31	57	---	64	63	---	61	---	28	---	124	62	---
TOTAL	1579	1989	2239	1983	1757	2175	1574	1649	584.3	4558	6821	1866
MEAN	50.9	66.3	72.2	64.0	62.8	70.2	52.5	53.2	19.5	147	220	62.2
MAX	57	75	79	69	66	80	60	88	121	250	597	100
MIN	46	58	64	60	57	60	46	26	5.3	50	62	37
AC-FT	3130	3950	4440	3930	3490	4310	3120	3270	1160	9040	13530	3700

WTR YR 1981 TOTAL 28774.3 MEAN 78.8 MAX 597 MIN 5.3 AC-FT 57070

09442680 SAN FRANCISCO RIVER NEAR RESERVE, NM

LOCATION.--Lat 33°44'12", long 108°46'14", in NE¼NW¼SE¼ sec.35, T.6 S., R.19 W., Catron County, Hydrologic Unit 15040004, 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.

REVISED RECORDS.--WDR NM-78-1: 1977.

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 different datum.

REMARKS.--Records good except those for April, which are fair and those for August and September, which are poor. Possible minor regulation by Luna Lake, 27 mi (43 km) upstream. Diversions for irrigation of about 280 acres (1.1 km^2) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--22 years, 25.4 ft^3/s (0.719 m^3/s), 18,400 acre-ft/yr (22.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,900 ft^3/s (337 m^3/s) Oct. 20, 1972, gage height, 7.47 ft (2.277 m) in gage well, 8.05 ft (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; maximum gage height, 9.40 ft (2.865 m) Nov. 25, 1978; minimum, 1.0 ft^3/s (0.028 m^3/s) Mar. 16, 1959.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 465 ft^3/s (13.2 m^3/s) Sept. 16, gage height, 7.74 ft (2.359 m) (backwater from temporary diversion dam) no other peak above base of 450 ft^3/s (12.7 m^3/s); minimum daily discharge, 2.0 ft^3/s (0.06 m^3/s) June 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	6.9	7.0	8.2	6.4	7.5	6.4	7.6	5.0	6.2	21	6.0
2	6.5	6.8	6.7	8.5	7.1	7.6	6.4	7.2	5.1	4.8	8.6	6.5
3	6.3	6.5	6.8	8.5	7.4	12	6.8	6.7	5.1	4.1	9.0	7.0
4	6.3	6.5	7.0	8.7	7.3	8.7	6.7	6.3	4.5	3.9	8.2	30
5	6.8	6.5	6.9	9.0	7.1	8.1	6.6	6.1	4.5	3.5	7.5	15
6	6.9	6.6	7.1	8.6	6.8	8.7	6.6	6.1	4.5	2.5	6.7	10
7	7.2	6.6	7.8	8.7	7.4	7.9	6.5	6.0	4.1	3.4	4.6	8.0
8	7.1	6.6	7.4	8.5	6.8	7.7	6.3	5.9	3.4	8.2	50	6.0
9	7.3	6.6	6.9	8.3	7.6	7.4	6.1	5.4	3.3	15	10	5.7
10	7.3	5.9	6.8	7.8	7.2	7.9	6.0	5.4	3.7	28	9.0	7.0
11	7.5	6.4	7.1	8.5	6.8	11	6.4	5.0	3.2	25	8.0	6.5
12	7.3	6.5	7.5	8.8	6.9	9.9	6.1	5.2	2.5	14	7.5	6.0
13	7.7	6.8	8.5	9.0	7.2	9.3	6.7	5.0	2.7	11	7.0	5.5
14	8.3	6.7	7.9	8.7	7.1	8.7	6.7	4.7	3.1	15	6.5	5.0
15	18	6.7	7.5	8.3	7.1	8.2	6.5	4.2	2.5	16	6.5	5.0
16	9.2	6.9	7.5	8.2	7.1	7.9	6.0	5.3	2.6	18	6.0	40
17	8.7	6.7	7.7	8.2	7.0	7.7	7.2	4.7	3.2	14	15	10
18	8.5	6.5	7.8	8.1	7.1	7.4	6.7	4.3	3.0	19	30	8.5
19	8.7	6.6	7.6	7.8	7.0	7.2	6.7	4.6	2.2	11	15	7.0
20	8.7	6.7	7.6	7.7	7.0	7.2	6.7	4.2	2.4	7.8	10	6.0
21	8.6	6.8	7.8	7.7	6.9	7.2	6.5	4.3	2.7	5.4	9.0	5.5
22	8.3	6.8	7.9	7.5	6.8	7.0	6.5	3.9	2.0	6.7	8.0	10
23	8.2	6.9	8.0	7.4	7.0	7.0	6.3	3.3	2.1	7.8	7.0	5.0
24	7.9	7.2	7.8	7.8	7.0	7.0	6.1	4.3	2.3	8.2	6.0	4.8
25	7.9	7.1	7.5	7.3	7.0	6.5	5.9	4.6	2.9	8.2	5.0	4.7
26	7.7	6.6	8.3	7.0	6.8	6.1	5.3	4.3	3.0	7.5	5.0	4.6
27	7.8	6.7	8.0	7.1	6.7	6.5	4.4	3.7	2.9	7.5	6.0	4.5
28	7.5	6.7	7.3	7.4	6.8	7.0	5.1	4.2	2.7	6.7	5.0	5.0
29	7.5	6.6	8.2	7.4	---	6.9	6.1	4.5	3.4	6.7	5.0	4.5
30	7.2	6.7	8.1	7.0	---	6.6	6.7	4.5	4.7	6.4	5.0	4.0
31	7.2	---	8.0	7.3	---	6.5	---	4.6	---	6.0	5.5	---
TOTAL	246.7	200.1	234.0	249.0	196.4	242.3	189.0	156.1	99.3	307.5	312.6	253.3
MEAN	7.96	6.67	7.55	8.03	7.01	7.82	6.30	5.04	3.31	9.92	10.1	8.44
MAX	18	7.2	8.5	9.0	7.6	12	7.2	7.6	5.1	28	50	40
MIN	6.3	5.9	6.7	7.0	6.4	6.1	4.4	3.3	2.0	2.5	4.6	4.0
AC-FT	489	397	464	494	390	481	375	310	197	610	620	502

CAL YR 1980	TOTAL	11634.8	MEAN 31.8	MAX 650	MIN 5.1	AC-FT	23080
WTR YR 1981	TOTAL	2686.3	MEAN 7.36	MAX 50	MIN 2.0	AC-FT	5330

GILA RIVER BASIN

09442692 TULAROSA RIVER ABOVE ARAGON, NM

LOCATION.--Lat 33°53'29", long 108°30'54", in NE¼NW¼ sec.9, T.5 S., R.16 W., Catron County, Hydrologic Unit 15040004, 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 mi^2 (244 km^2).

PERIOD OF RECORD.--July 1966 to current year. 1955 to 1965 at site 0.6 mi (1.0 km) upstream (drainage area, 89 mi^2 or 231 km^2), annual maximum only.

REVISED RECORD.--WDR NM-78-1: 1977.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,750 ft (2,057 m), from topographic map.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years, 3.35 ft^3/s (0.095 m^3/s), 2,430 acre-ft/yr (3.00 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 392 ft^3/s (11.1 m^3/s) Sept. 1, 1971, gage height, 3.13 ft (0.954 m), from rating curve extended above 80 ft^3/s (2.27 m^3/s) on basis of slope-area measurement of peak flow; minimum, 1.1 ft^3/s (0.031 m^3/s) July 22, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 304 ft^3/s (8.61 m^3/s) at 1945 hours July 12, gage height, 3.00 ft (0.914 m), no other peak above base of 20 ft^3/s (0.57 m^3/s); minimum, 2.4 ft^3/s (0.068 m^3/s) Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	3.2	3.5	3.7	3.5	3.3	2.9	3.1	3.1	3.5	3.3	2.7
2	3.0	3.2	3.5	3.7	3.5	3.2	2.9	3.1	3.2	3.3	3.2	2.6
3	2.9	3.2	3.5	3.7	3.5	3.3	3.0	3.1	3.2	3.2	3.2	3.3
4	2.9	3.2	3.5	3.7	3.4	3.2	2.9	3.1	3.2	3.2	3.2	2.7
5	2.9	3.2	3.5	3.7	3.4	3.2	2.9	3.1	3.2	3.4	3.2	2.6
6	3.0	3.2	3.5	3.7	3.4	3.2	2.9	3.1	3.1	3.2	3.2	2.6
7	2.9	3.2	3.7	3.7	3.4	3.1	2.9	3.1	3.1	3.3	3.1	2.6
8	3.0	3.2	3.6	3.7	3.4	3.1	2.9	3.1	3.1	3.8	3.1	2.5
9	3.0	3.2	3.6	3.7	3.5	3.2	2.9	3.1	3.1	3.4	3.1	2.5
10	3.0	3.2	3.6	3.7	3.5	3.2	2.8	3.1	3.1	3.8	3.0	2.5
11	3.0	3.2	3.6	3.7	3.4	3.3	2.8	3.1	3.1	4.0	2.8	2.5
12	3.0	3.2	3.6	3.6	3.4	3.1	2.8	3.0	3.1	20	2.8	2.6
13	3.1	3.3	3.7	3.7	3.4	3.0	3.0	3.0	3.1	7.3	2.9	2.6
14	3.1	3.4	3.6	3.6	3.3	3.1	2.9	3.0	3.1	3.7	3.0	2.6
15	3.2	3.4	3.6	3.6	3.3	3.0	3.0	3.0	3.0	3.6	2.8	2.6
16	3.1	3.4	3.6	3.6	3.3	3.0	3.0	3.0	3.1	3.6	2.8	2.6
17	3.1	3.4	3.6	3.6	3.3	3.0	3.0	3.1	3.0	3.4	2.8	2.9
18	3.2	3.4	3.6	3.6	3.3	3.0	3.0	3.0	3.1	3.4	2.8	2.5
19	3.2	3.4	3.6	3.6	3.2	2.9	3.0	3.1	3.0	3.4	2.9	2.5
20	3.2	3.4	3.6	3.6	3.2	2.9	3.0	3.1	3.0	3.3	2.8	2.6
21	3.2	3.4	3.6	3.6	3.2	2.9	3.0	3.1	3.0	3.4	2.7	2.6
22	3.2	3.4	3.6	3.6	3.2	2.9	3.0	3.1	3.0	3.3	2.7	2.6
23	3.2	3.4	3.7	3.5	3.1	2.9	3.0	3.1	3.1	3.4	2.6	2.6
24	3.2	3.4	3.7	3.5	3.1	2.9	3.1	3.1	3.1	3.3	2.6	2.5
25	3.2	3.4	3.7	3.5	3.1	2.9	3.1	3.1	3.1	3.3	2.7	2.6
26	3.2	3.4	3.7	3.5	3.1	2.9	3.0	3.1	3.1	4.0	2.7	2.6
27	3.2	3.4	3.7	3.5	3.1	2.9	3.1	3.1	3.1	5.4	2.6	2.6
28	3.2	3.4	3.7	3.5	3.2	2.9	3.1	3.1	3.2	3.4	2.9	2.7
29	3.2	3.5	3.7	3.4	---	3.0	3.1	3.1	3.2	3.3	2.7	2.6
30	3.2	3.4	3.7	3.4	---	2.9	3.1	3.1	3.3	3.3	2.6	2.6
31	3.2	---	3.7	3.5	---	2.9	---	3.1	---	3.2	2.8	---
TOTAL	95.9	99.6	112.1	111.7	92.7	94.3	89.1	95.5	93.2	129.1	89.6	78.6
MEAN	3.09	3.32	3.62	3.60	3.31	3.04	2.97	3.08	3.11	4.16	2.89	2.62
MAX	3.2	3.5	3.7	3.7	3.5	3.3	3.1	3.1	3.3	20	3.3	3.3
MIN	2.9	3.2	3.5	3.4	3.1	2.9	2.8	3.0	3.0	3.2	2.6	2.5
AC-FT	190	198	222	222	184	187	177	189	185	256	178	156

CAL YR 1980 TOTAL 1181.6 MEAN 3.23 MAX 23 MIN 2.6 AC-FT 2340
WTR YR 1981 TOTAL 1181.4 MEAN 3.24 MAX 20 MIN 2.5 AC-FT 2340

09443000 SAN FRANCISCO RIVER NEAR ALMA, NM

LOCATION.--Lat 33°22'05", long 108°54'35", in SW¼SE¼ sec.4, T.11 S., R.20 W., Catron County, Hydrologic Unit 15040004, 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 mi^2 (4,004 km^2).

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".

REVISED RECORD.--WDR NM-78-1: 1977.

GAGE.--Water-stage recorder. Altitude of gage is 4,842 ft (1,476 m), from topographic map. 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. Jan. 10, 1964 to Nov. 1, 1972, at datum 3.00 ft (0.91 m) higher.

REMARKS.--Records good except those for August and September, which are poor. Diversions for irrigation of about 1,600 acres (6.5 km^2) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--17 years (water years 1965-81), 73.6 ft^3/s (2.084 m^3/s), 53,320 acre-ft/yr (65.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,600 ft^3/s (867 m^3/s) Oct. 20, 1972, gage height, 18.16 ft (5.535 m), present datum, from floodmarks in well, from rating curve extended above 9,000 ft^3/s (255 m^3/s) on basis of slope-area measurement of peak flow; no flow many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods probably occurred Jan. 19 and Oct. 14, 1916, when discharges of 60,000 ft^3/s (1,700 m^3/s) were computed at Clifton, AZ.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,900 ft^3/s (139 m^3/s) Aug. 10, gage height, 7.90 ft (2.408 m) no other peak above base of 1,000 ft^3/s (28 m^3/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.84	.30	12	14	11	10	5.2	1.7	.00	.00	25	.62
2	.84	.30	12	14	11	11	4.8	.84	.00	.00	32	.20
3	.84	.35	12	14	10	14	5.8	.62	.00	.00	14	.20
4	.84	1.6	12	14	11	16	5.5	.40	.00	.00	4.4	43
5	.84	4.8	12	14	12	18	4.8	.20	.00	.00	5.9	31
6	.84	5.2	11	14	12	19	4.5	.62	.00	.00	.22	14
7	.84	5.5	11	13	12	19	4.5	.62	.00	.00	.71	12
8	.84	6.6	11	13	12	18	4.5	.62	.00	1.5	2.4	12
9	.84	7.5	11	13	13	18	3.6	.40	.00	4.7	.20	12
10	.62	7.9	12	12	12	16	2.6	.40	.00	.20	184	19
11	.60	7.9	12	12	12	17	2.9	.20	.00	.11	51	14
12	.60	7.5	11	13	12	19	2.9	.40	.00	7.7	22	11
13	.60	7.5	11	13	12	20	3.9	.00	.00	.12	30	10
14	.60	8.7	12	14	12	20	1.3	.00	.00	.00	20	8.7
15	.62	9.2	12	14	12	19	1.1	.00	.00	.00	15	7.9
16	11	9.6	12	14	12	18	1.1	.00	.00	3.0	13	49
17	8.7	9.6	12	14	13	17	.84	.00	.00	1.5	38	21
18	5.8	10	13	14	12	16	1.1	.00	.00	5.5	21	20
19	5.2	12	13	13	12	14	.62	.00	.00	.81	95	15
20	4.5	13	13	13	12	15	.62	.00	.00	.07	24	13
21	4.2	13	13	12	11	14	1.1	.00	.00	.00	7.1	12
22	2.9	13	13	12	11	13	1.3	.00	.00	.00	6.2	25
23	.84	12	13	13	10	11	1.1	.00	.00	.00	5.5	16
24	.20	12	14	13	10	10	.84	.00	.00	10	4.2	8.3
25	.20	12	14	12	10	9.2	.84	.00	.00	3.4	.40	7.5
26	.20	12	14	12	10	7.9	1.1	.00	.00	.00	.62	7.1
27	.20	12	14	13	10	7.5	1.1	.00	.00	.00	9.6	5.8
28	.30	12	14	13	9.2	5.5	1.1	.00	.00	.00	2.9	5.8
29	.30	12	14	13	---	6.2	.84	.00	.00	.29	3.6	5.2
30	.30	12	14	13	---	6.2	1.1	.00	.00	.00	3.9	4.2
31	.30	---	14	12	---	5.8	---	.00	---	.00	4.2	---
TOTAL	56.34	257.05	388	407	318.2	430.3	72.60	7.02	.00	38.90	646.05	410.52
MEAN	1.82	8.57	12.5	13.1	11.4	13.9	2.42	.23	.000	1.25	20.8	13.7
MAX	11	13	14	14	13	20	5.8	1.7	.00	10	184	49
MIN	.20	.30	11	12	9.2	5.5	.62	.00	.00	.00	.20	.20
AC-FT	112	510	770	807	631	853	144	14	.00	77	1280	814

CAL YR 1980 TOTAL 27311.51 MEAN 74.6 MAX 2570 MIN .20 AC-FT 54170
WTR YR 1981 TOTAL 3031.98 MEAN 8.31 MAX 184 MIN .00 AC-FT 6010

GILA RIVER BASIN
09444000 SAN FRANCISCO RIVER NEAR GLENWOOD, NM

LOCATION.--Lat 33°14'48", long 108°52'47", in NE¼NW¼ sec.23, T.12 S., R.20 W., Catron County, Hydrologic Unit 15040004, 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 mi^2 (4,281 km^2).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1213: 1931, 1934, 1936-37, 1940-42, 1943-44(M), 1945-47. WSP 1283: Drainage area. WDR NM-78-1: 1977. WDR NM-79-1: 1973, 1975-77 (P).

GAGE.--Water-stage recorder. Altitude of gage is 4,560 ft (1,390 m), from topographic map; prior to Feb. 15, 1934, at site 4.5 mi (7.2 km) upstream at datum 98.82 ft (30.120 m) higher.

REMARKS.--Water-discharge records good. Diversions for irrigation of about 2,000 acres (8.1 km^2) above station. Gage height Satellite telemeter at station.

AVERAGE DISCHARGE.--54 years, 74.9 ft^3/s (2.121 m^3/s), 54,270 acre-ft/yr (66.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,000 ft^3/s (680 m^3/s), Oct. 20, 1972, gage height, 16.61 ft (5.063 m), from rating curve extended 6,500 ft^3/s (184 m^3/s) on basis of slope-area measurements at gage heights 10.74 ft (3.274 m) and 15.6 ft (4.755 m); minimum, 1.5 ft^3/s (0.042 m^3/s) Aug. 6, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods probably occurred Jan. 19 and Oct. 14, 1916 when discharges of 60,000 ft^3/s (1,700 m^3/s) or greater were computed for station at Clifton, AZ. On Nov. 26, 1905, a peak of 25,000 ft^3/s (708 m^3/s) was measured (by float-area method) at station at Alma (about 12 mi or 19 km upstream, drainage area, 1,560 mi^2 or 4,040 km^2); a similar measurement of 21,000 ft^3/s (595 m^3/s) was made at the Alma station for peak of Dec. 3, 1906.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft^3/s (23 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
July 13	1615	1,090	30.9	4.14	1.262	Aug. 10	1845	*1,730	49.0	4.97	1.515

Minimum discharge, 8.0 ft^3/s (0.23 m^3/s) July 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	20	19	28	30	24	19	111	26	31	46	28
2	23	20	19	28	28	26	20	87	29	28	90	29
3	24	19	19	30	30	34	25	67	27	29	93	31
4	25	18	18	31	29	35	26	48	29	30	43	51
5	24	22	17	31	30	37	25	40	30	30	37	84
6	21	19	17	31	28	42	20	29	21	35	23	53
7	23	19	18	32	26	42	18	27	20	42	39	36
8	22	21	18	32	30	42	20	25	21	54	88	34
9	21	22	22	30	35	39	21	22	18	36	52	36
10	20	22	23	30	35	38	19	23	16	27	196	43
11	19	22	23	30	31	38	20	28	17	20	57	47
12	18	23	23	34	31	43	20	19	18	30	53	39
13	21	21	25	34	31	45	22	24	18	71	50	36
14	21	20	25	33	31	45	20	20	23	52	48	34
15	25	23	24	34	31	46	21	23	22	49	39	29
16	34	23	24	35	31	40	22	29	18	51	32	42
17	39	23	24	33	32	40	25	26	18	51	55	72
18	32	23	25	33	33	37	23	24	19	50	68	51
19	27	23	21	33	31	35	22	24	18	44	58	45
20	26	23	19	32	29	33	20	22	18	29	105	37
21	22	22	23	32	28	35	19	24	15	23	39	36
22	22	22	23	31	28	33	19	22	22	17	33	31
23	21	21	24	35	28	31	20	27	20	19	30	65
24	21	22	24	39	27	29	21	31	20	14	26	36
25	20	21	24	38	27	29	21	28	22	40	22	33
26	20	20	24	30	27	27	24	26	19	11	24	29
27	23	20	26	30	26	27	22	23	17	10	25	27
28	22	20	28	30	25	26	21	20	20	16	31	27
29	22	19	28	30	---	26	19	25	22	17	24	30
30	21	20	28	30	---	25	18	29	25	22	25	24
31	20	---	28	30	---	23	---	30	---	21	27	---
TOTAL	723	633	703	989	828	1072	632	1003	628	999	1578	1195
MEAN	23.3	21.1	22.7	31.9	29.6	34.6	21.1	32.4	20.9	32.2	50.9	39.8
MAX	39	23	28	39	35	46	26	111	30	71	196	84
MIN	18	18	17	28	25	23	18	19	15	10	22	24
AC-FT	1430	1260	1390	1960	1640	2130	1250	1990	1250	1980	3130	2370

CAL YR 1980	TOTAL	38066	MEAN	104	MAX	2500	MIN 17	AC-FT	75500
WTR YR 1981	TOTAL	10983	MEAN	30.1	MAX	196	MIN 10	AC-FT	21780

09444000 SAN FRANCISCO RIVER NEAR GLENWOOD, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT											
01...	0920	26	342	8.1	--	19.0	--	--	--	--	--
NOV											
18...	1000	23	353	8.3	--	.0	130	0	--	37	10
FEB											
10...	1100	32	384	8.3	7.0	10.0	130	0	--	37	9.5
MAR											
25...	1015	28	440	8.2	12.5	9.0	--	--	--	--	--
APR											
07...	1645	18	395	8.2	27.0	23.0	--	--	--	--	--
MAY											
12...	1530	18	370	8.4	28.0	27.0	130	--	.00	37	9.0
JUN											
09...	1530	19	320	8.4	40.0	28.0	--	--	--	--	--
JUL											
07...	1030	156	250	7.9	24.0	19.5	--	--	--	--	--
AUG											
10...	1500	43	364	7.9	20.0	22.0	120	--	.00	35	8.7
SEP											
09...	1045	38	230	8.4	23.5	20.0	--	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
OCT											
01...	--	--	--	--	--	--	--	--	--	--	--
NOV											
18...	22	.8	2.5	160	8.7	12	.4	35	224	30	<10
FEB											
10...	25	.9	2.5	160	15	7.8	.4	36	349	30	90
MAR											
25...	--	--	--	--	--	--	--	--	--	--	--
APR											
07...	--	--	--	--	--	--	--	--	--	--	--
MAY											
12...	22	.8	2.8	160	15	8.3	.4	35	226	80	20
JUN											
09...	--	--	--	--	--	--	--	--	--	--	--
JUL											
07...	--	--	--	--	--	--	--	--	--	--	--
AUG											
10...	29	1.2	3.7	130	<5.0	29	.4	42	--	30	610
SEP											
09...	--	--	--	--	--	--	--	--	--	--	--

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT					
01...	0530	24	19.0	13	.84
NOV					
18...	1000	23	.0	6	.37
MAY					
12...	1530	18	27.0	24	1.2

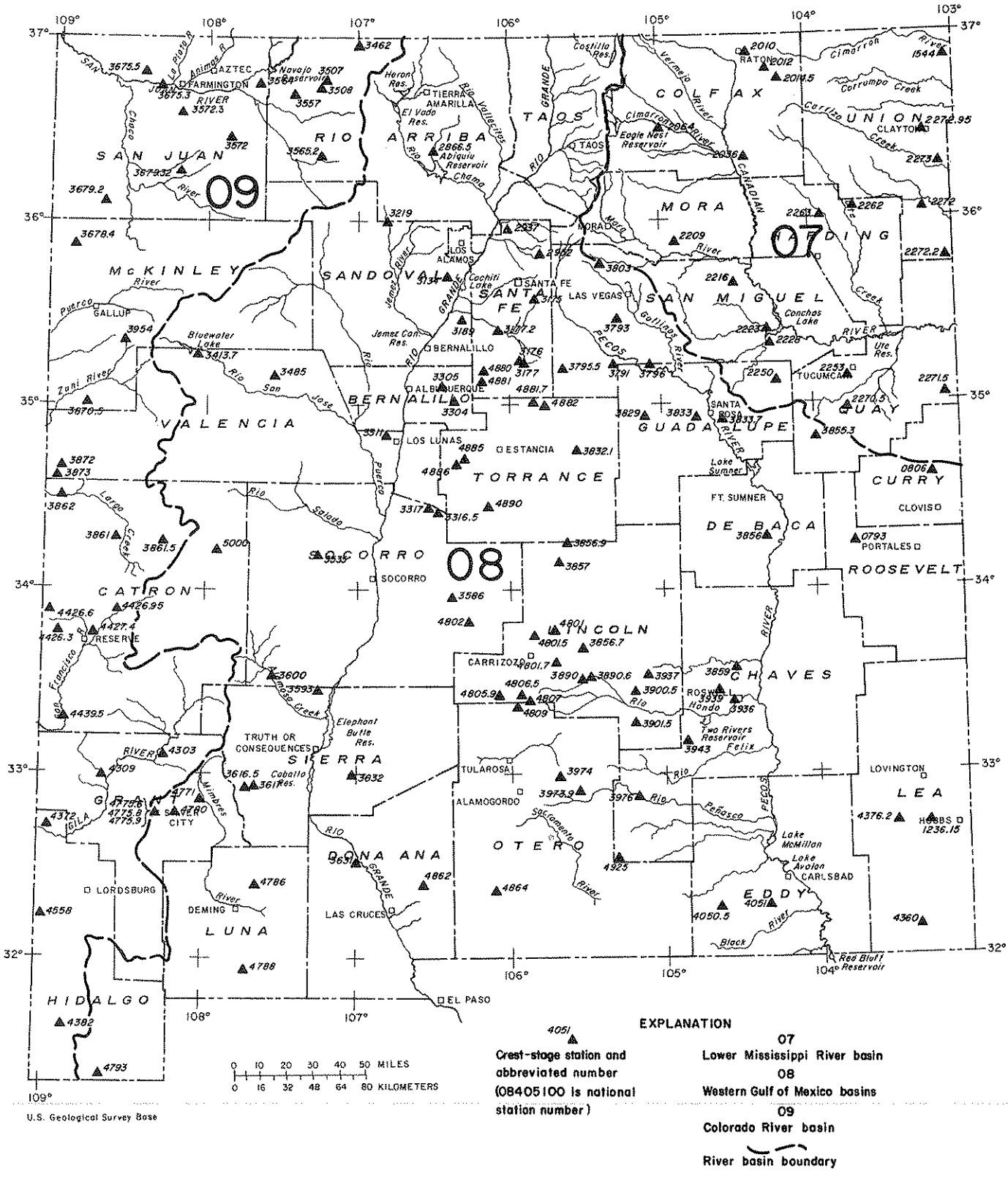


Figure 7--Map of New Mexico showing location of partial-record stations.

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 floodflow analyses. 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 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 the second table.

Crest-stage partial-record stations

The following table contains annual maximum discharge for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each 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 are for water years.

Annual maximum discharge at crest-stage partial-record stations

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		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-	06-22-81	4.65	c2000
07201000	Raton Creek at Raton, N. Mex.	Lat 36°55'38", long 104°26'22", Colfax County, 60 ft above bridge on State Highway 72 at Raton.	14.4	1953-	- - 81	(e)	-
07201200	Chicorica Creek tributary near Raton, N. Mex.	Lat 36°49'41", long 104°19'58", Colfax County, upstream from culvert on U.S. Highway 64-87, 7.7 miles southeast of Raton.	5.18	1971-	08-07-81	4.78	34
07201450	Green Mountain Arroyo 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-	09-13-81	3.50	<10
07203600	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-	- -81	-	0
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-	05-17-81	2.44	c85

Annual maximum discharge at crest-stage partial-record stations - Continued

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Arkansas River Basin - Continued					
07220900	Dog Creek near Shoemaker, N. Mex.	Lat 36°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-	08-08-81	10.34	1,700
07221600	Lagartija Creek tributary near Sanchez, N. Mex.	Lat 35°39'21", long 104°24'57" San Miguel County, at bridge on State Highway 65, 0.9 mile northeast of Sanchez.	a1	1961-	- -81	3.15	(+)
07222300	Trementina Creek at Trementina, N. Mex.	Lat 35°29'28", long 104°24'59", San Miguel County, at bridge on State Highway 65, at Trementina.	a65	1959-	08-09-81	3.11	290
07222800	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-	08-11-81	11.21	c1,500
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-	07-16-81	8.01	3,500
07225300	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-	08-11-81	12.71	c2,350
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-	08-11-81	3.65	1,150
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-	08-11-81	7.11	1,800
07227050	Plaza Larga Creek tributary near Ragland, N. Mex.	Lat 34°48'29", long 103°45'35", Quay County, at culvert on State Highway 18, 1.2 miles northwest of Ragland.	.36	1952-	09-25-81	6.38	148
07227150	Arroyo del Puerto near Endee, N. Mex.	Lat 35°03'32", long 103°06'04", Quay County, at bridge on State Highway 93, 5.4 miles south of Endee.	a25	1961-	07-09-81	5.87	c450
07227200	Tramperos Creek near Stead, N. Mex.	Lat 36°04'15", long 103°12'10", in NW°NW° 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 Clayton.	a556	1966-73* 1974-	08-17-81	9.65	2,850
07227220	Fullingim Draw, 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-	08-11-81	(e)	c4,000

Annual maximum discharge at crest-stage partial-record stations - Continued

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Arkansas River Basin - Concluded					
07227295	Sand Draw tributary near Clayton, N. Mex.	Lat 36°23'20", long 103°19'05", Union County, above culvert on State Highway 56, 8 miles southwest of Clayton.	1.25	1952-	- -81	(e)	-
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-	08-27-81	1.93	(+)
		Brazos River basin					
08079300	Blackwater Draw tributary near Floyd, N. Mex.	Lat 34°14'52", long 103°44'51", Roosevelt County, 0.5 mile below section road and 10 miles west of Floyd.	a10	1963-	08-11-81	3.04	430
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-	08-08-81	6.59	c4,700
08123615	Monument Draw near Monument, N. Mex.	Lat 32°41'48", long 103°16'10", SW¼SE¼ sec.32, T.18 S., R.37 E., Lea County upstream from culvert on U.S. Highway 62-180, 8 miles west of Hobbs, and 5 miles north of Monument.	17.2	1975-	05-15-80 07-28-81	h2.03 1.98	(+) (+)
		Rio Grande basin					
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-	06-30-81	6.61	(+)
08293700	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-	08-08-81	7.25	169
08295200	Rio en Medio near Santa Fe, N. Mex.	Lat 35°47'30", long 105°47'38", Santa Fe County, in Santa Fe National Forest, on right bank 300 feet east of Santa Fe Ski Basin parking area, and 10.8 miles northeast of Santa Fe.		1963-73* 1973-	09-04-81	0.71	1.8
08313400	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-	09-05-81	3.12	c290
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-	08-27-81	4.35	1,550
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-	08-01-81	8.75	c4,830

Annual maximum discharge at crest-stage partial-record stations - Continued

Station no.	Station name	Location	Drainage area (ft^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Rio Grande basin - Continued					
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-	- -81	14.16	210
08317720	Canada 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-	06-30-81	3.16	154
08318900	San Pedro Creek near Golden, N. Mex.	Lat 35°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-	07-01-81	2.61	1,860
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-	08-18-81	3.39	180
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-	06-30-81	1.08	(+)
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-	08-17-81	2.81	1,180
08331100	Belen Highline Canal tributary near Los Lunas,	Lat 34°49'20", long 106°49'10", Valencia County, above culvert on Highway 6, 5.0 miles west of Los Lunas.	.16	1952-53 1955-	09-05-81	4.67	175
08331650	Canada Montoso near Scholle, N. Mex.	Lat 34°23'11", long 106°28'37", 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-	- -81	(e)	-
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 of Scholle.	.23	1954-	07-07-81	13.64	40
8341370	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-	07-16-81	1.82	15
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-	07-16-81	4.70	1,160

Annual maximum discharge at crest-stage partial-record stations - Continued

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Rio Grande basin - Continued					
08353500	La Jencia Creek near Magdalena, N. Mex.	Lat 34°09'45", long 107°12'35", Socorro County, 3.5 miles northeast of Magdalena.	195	1957-	09-09-80 07-07-81	6.91 8.00	h3,400 3,950
08358600	Chupadera Wash tributary at Bingham, N. Mex.	Lat 33°51'39", long 106°22'06", Socorro County, 75 ft upstream from culvert on U.S. Highway 380, 0.1 mile west of Bingham.	1.29	1961	- -81	1.73	118
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-	06-29-81	1.62	(+)
08360000	Alamosa Creek near Monticello, N. Mex.	Lat 33°34'09", long 107°35'33", Socorro County, on left bank at Alamosa damsite and below Old Fort Ojo Caliente, just downstream from Wildhorse Creek, 15 miles northwest of Monticello.	403	1931-42* 1956-58 1958-69* 1973-	06-29-81	4.51	776
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-	09-07-81	3.85	445
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	1957-78 1980-	09-07-81	4.68	1,380
08363100	Rio Grande tributary near Radium Springs, N. Mex.	Lat 32°30'05", long 106°57'05", Dona Ana County, above culvert on U.S. Highway 85, 120 ft above mouth, and 1.4 miles west of Radium Springs.	.40	1955-	09- -81	5.95	177
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 0.26 mile west of Aleman.	25.5	1959-	08-13-80 06-30-81	h3.26 3.82	h295 420
08379100	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-	09-08-81	6.49	(+)
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-	08-12-81	8.21	2,400
08379550	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-	08-12-81	4.95	301
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-	08- -81	0.34	2.9

Annual maximum discharge at crest-stage partial-record stations - Continued

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Rio Grande basin - Continued					
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-	09-10-80 08-12-81	1.32 3.93	h44 1,050
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-	08-11-81	3.13	1,950
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-	- -81	-	0
08383300	Pintada Arroyo near Santa Rosa, N. Mex.	Lat 34°53'20", long 104°43'50", Guadalupe County, at bridge on U.S. Highway 54, and 4.5 miles southwest of Santa Rosa.	896	1959-	08-11-81	6.28	(+)
08383370	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-	09- -77 06-04-78 - -79 - -80 08-11-81	9.51 7.19 82 h6.65 7.76	h268 h106 84 h76 145
08385530	Alamosa Creek tributary near Jordan, N. Mex.	Lat 34°47'44", long 103°58'07", Quay County, 500 ft upstream from dip on State Highway 156, 6.9 miles west of Jordon.	9.71	1962-	08-10-81	2.31	37
08385600	Yeso Creek near Fort Sumner, N. Mex.	Lat 34°16'32", long 104°17'28", De Baca County, at abandoned bridge 1 mile downstream from State Highway 20, and 14.5 miles south of Fort Sumner.	242	1937 h 1952-	- -80 - -81	h1.83 2.53	h830 1,200
08385670	Aragon Creek tributary near Encinoso, N. Mex.	Lat 33°43'35", long 105°31'43", Lincoln County, 0.3 mile upstream from wooden bridge on dirt road, 1.2 miles north of State Highway 48, 4.3 miles west.	6.07	1961-	09- -80 - -81	c3.52 e	h335 -
08385690	Bonita Canyon tributary near Corona, N. Mex.	Lat 34°14'04", long 105°37'12", Lincoln County, above culvert on U.S. Highway 54, and 1.8 miles southwest of Corona.	a.6	1959-	08-11-81	3.78	108
08385700	Cloud Canyon tributary near Gallinas, N. Mex.	Lat 34°07'53", long 105°40'57", Lincoln County, above culvert on U.S. Highway 54, and 2.0 miles southwest of Gallinas.	a10	1957-	08-11-81	3.31	72
08385900	Salt Creek tributary near Roswell, N. Mex.	Lat 33°32'22", long 104°31'08", 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-	- -81	b	(+)
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-	05-17-79 08-18-81	h7.20 5.75	h4,100 1,600

Annual maximum discharge at crest-stage partial-record stations - Continued

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Rio Grande basin - Continued					
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-	- -81	(b)	<110
08390050	Rio Hondo tributary at Tinnie, N. Mex.	Lat 33°22'36", long 105°13'01", Lincoln County, upstream from culvert on U.S. Highway 70-380, 0.5 mile east of junction of U.S. Highway 70-380 and State Highway 368, and at Tinnie.	.23	1971-	08-18-81	6.32	99
08390150	Gallo Canyon near Picacho, N. Mex.	Lat 33°17'23", long 105°10'49", Lincoln County, 500 ft east of road, 5 miles south of Arabela.	1.32	1962-	08-18-81	4.07	87
08393600	North Spring River at Roswell, N. Mex.	Lat 33°23'47", long 105°32'53", Chavez County, Roswell Municipal Golf Course, 2,400 ft upstream from Montana Ave. in Roswell.	19.5	1958-	05-03-81	3.50	85
08393700	Pancho Canyon near Arabela, N. Mex.	Lat 33°30'36", long 105°11'38", Lincoln County, 200 ft downstream from dip on State Highway 368, 5.6 miles south of Arabela.	16.7	1962-	- -81	2.47	(+)
08393900	Eight Mile Draw near Roswell, N. Mex.	Lat 33°24'05", long 104°37'54", Chavez County, 6.5 miles west of Roswell.	397	1941 1952-	09-09-80 - -81	15.81 (b)	h2,750 <10
08394300	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-	08- -81	2.25	110
08397390	Curtis Canyon near Mayhill, N. Mex.	Lat 32°51'52", long 105°31'05", Otero County, 0.26 mile above SCS dam, 0.4 mile west of State Highway 130, and 2.5 miles southwest of Mayhill.	10.3	1959-	- -81	(b)	<20
08397400	Hyatt Canyon near Cloudcroft, N. Mex.	Lat 32°56'06", long 105°37'37", Otero County, 0.5 mile south of State Highway 83, and 7 miles east of Cloudcroft.	3.08	1953-	- -81	1.73	(+)
08397600	Rio Penasco 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-	06-03-81	6.51	215
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-	08-12-81	1.75	38
08405100	Mosley Canyon White City, N. Mex.	Lat 32°15'27", long 104°22'43", Eddy County, 600 ft below dip on Dark Canyon Road, and 5.5 miles north of White City.	14.6	1959-	08-15-79 - -80 07-09-81	h4.23 6.63 6.34	h1,650 h2,850 2,650

Annual maximum discharge at crest-stage partial-record stations - Continued

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Rio Grande basin - Concluded					
08436000	Antelope Draw near Jal, N. Mex.	Lat 32°09'18", long 103°21'51", Lea County, 0.4 mile south of State Highway 128, and 10.7 miles west of Jal.	a20	1963-	- -81	(b)	(+)
08437620	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-	06-03-69	5.05	7.4
					10-20-69	5.53	33
					08-16-71	5.24	14
					06-10-72	7.87	1,280
					- -73	(b)	<6
					08-11-74	5.52	32
					07-21-75	5.75	56
					- -76	(b)	<6
					- -77	(b)	<6
					06-05-78	5.81	63
					06-08-79	5.47	28
					05-15-80	h5.70	h50
					07-28-81	5.83	67
		Mimbres River basin					
08477100	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-	08- -81	c5.56	682
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-	08-02-81	2.15	505
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-	08-02-81	3.05	720
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-	- -81	(b)	(+)
08478000	Cameron Creek at Central, N. Mex.	Lat 32°47'38", long 108°08'58", Grant County, 0.5 mile above culvert on U.S. Highway 260, at north edge of Central.	18.8	1954-	- -81	(b)	150
08478600	Mimbres basin tributary near Florida, N. Mex.	Lat 32°21'30", long 107°37'30", Luna County, above culvert on State Highway 26, and 5 miles southwest of Florida.	.55	1959-	07-01-81	1.84	100
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-	- -81	-	0
		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-	09- -81	2.70	525

Annual maximum discharge at crest-stage partial-record stations - Continued

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Tularosa Valley					
08480100	White Oaks Canyon at White Oaks, N. Mex.	Lat 33°46'06", long 105°43'26", Lincoln County, 40 ft upstream from culvert on State Highway 349, 1 mile northeast of White Oaks.	1.14	1961-	08-14-80 - -81	h1.11 1.72	(+) (+)
08480150	White Oaks Canyon near Carrizozo, N. Mex.	Lat 33°43'51", long 105°50'11", Lincoln County, 100 ft upstream from culvert on U.S. Highway 54, 6 miles north of Carrizozo.	31	1959 1961-	08-15-79 - -81	h1.31 3.77	h560 1,400
08480170	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-	- -81	3.26	195
08480200	Taylor Canyon tributary near Bingham, N. Mex.	Lat 33°48'11", long 106°12'00", Socorro County, 200 ft north of U.S. Highway 380, 12 miles southeast of Bingham.	2.66	1961-	07- -81	1.57	(+)
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-	- -77 - -80 - -81	2.48 (b) (b)	(+) h(+) (+)
08480650	Minnie Hall Draw near Three Rivers, N. Mex.	Lat 33°23'40", long 105°58'11", Lincoln County, 8 miles northeast of Three Rivers.	9.70	1956-	- -80 - -81	h14.74 (e)	h4,100 -
08480700	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-	h06-02-79 - -81	3.70 3.80	150 170
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-	- -81	(b)	<100
08486200	Black Prince Canyon tributary near Organ, N. Mex.	Lat 32°26'11", long 106°32'03", 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-	- -81	-	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-	08-07-81	6.32	(+)
		Estancia Valley					
08488000	Estancia Valley tributary at Cedar Grove, N. Mex.	Lat 35°10'05", long 106°10'08", Santa Fe County, 50 ft upstream from culvert on State Highway 344, 0.1 mile south of Cedar Grove.	1.21	1955 1961-	05-02-81	7.86	(+)
08488100	Juan Tomas Canyon near Edgewood, N. Mex.	Lat 35°04'35", long 106°13'46", Santa Fe County, 140 ft upstream from culvert on U.S. Highway 66, 2.5 miles northwest of Edgewood.	a20	1962-	08-11-81	2.44	142

Annual maximum discharge at crest-stage partial-record stations - Continued

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Estancia Valley - Concluded					
08488170	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-	06-30-81	6.11	315
08488200	Osita Draw near Clines Corners N. Mex.	Lat 35°00'18", long 105°48'00", Torrance County, 100 ft upstream from culvert on U.S. Highway 66, 7.5 miles west of Clines Corners.	a10	1961-	08-12-81	4.44	c880
08488500	Canon 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-	07-16-81	1.40	120
08488600	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-	07-16-81	3.13	410
08489000	Big Draw near Mountainair, N. Mex.	Lat 34°18'45", long 106°11'35", 0.25 mile above culvert on State Highway 10, and 8.4 miles southeast of Mountainair.	h4.06	1953-	07-07-81	4.55	153
		Crow Flats					
08492500	Fleming Draw near Pinon, N. Mex.	Lat 32°31'01", long 105°20'42", Otero County, 0.2 mile above dip in ranch road, and 7.5 miles south of Pinon.	16.6	1959-	- -81	(b)	<450
		San Augustin Plains basin					
08500000	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	1970-72 1976-	09-09-80 08-28-81	5.29 4.50	h160 14
		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-	07- -81	4.47	j580
09350700	Ruben Canyon near Gobernador, N. Mex.	Lat 36°44'26", long 107°14'33", Rio Arriba County, in Carson National Forest, upstsream from culvert on State Highway 17, and 6.5 miles east of Gobernador.	5.06	1970-	- -81	(b)	(+)
09350800	Vaqueros Canyon near Gobernador, N. Mex.	Lat 36°43'23", long 107°16'47", Rio Arriba County, 100 ft east of State Highway 17, and 4.2 miles east of Gobernador.	60.5	1956-	- -78 12-18-78 - -81	h2.90 h4.81 b	h142 h425 <40
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-	- -81	(b)	<400

Annual maximum discharge at crest-stage partial-record stations - Continued

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		San Juan River basin - Concluded					
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-	07-02-81	3.21	700
09356520	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-	06-29-81	d10.87	725
09357200	Gallegos Canyon tributary near Nageezi, N. Mex.	Lat 36°24'59", long 107°51'45", 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-	07-01-81	3.28	210
09357230	West Draw near Farmington, N. Mex.	Lat 36°35'24", long 108°11'03", San Juan County, 15 ft upstream of culvert on State Highway 371, 11 miles south of Farmington.	.32	1975-	- -81	-	0
09367530	Locke Arroyo near Kirtland, N. Mex.	Lat 36°43'51", long 108°17'46", 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-	- -81	(b)	<70
09367550	Stevens Arroyo near Kirtland, N. Mex.	Lat 36°45'56", long 108°21'59", 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.	4.52	1970-	04-19-81	10.18	(+)
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.	2.1	1953-54 1956-	07-16-81	4.38	390
09367920	Coyote Wash tributary near Naschitti, N. Mex.	Lat 36°05'56", 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-	08-14-80 09-05-81	d7.72 5.73	996 (+)
09367932	Hunter Wash tributary near Bisti Trading Post, N. Mex.	Lat 36°15'33", long 108°15'06", San Juan County, on left bank upstream of culverts, 1.2 mile south of Bisti Trading Post.	8.47	1975-	07-17-81	6.56	(+)
		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-	09-18-81	1.93	245
09386150	Mangas Creek tributary near Pietown, N. Mex.	Lat 34°18'11", long 108°08'30", Catron County, above culvert on U.S. Highway 60, 1.3 miles west of Junction with state road 36 in Pietown.	a.08	1952-	- -81	(b)	(+)

Annual maximum discharge at crest-stage partial-record stations - Continued

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Little Colorado River basin - Concluded					
09386200	Carrizo Creek near Salt Lake, N. Mex.	Lat 34°30'39", long 109°01'35", 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.	af560	1957-	09-18-81	4.87	(+)
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-	- -81	-	0
09387200	Un-named Arroyo near Ojo Caliente, N.Mex.	Lat 34°56'06", long 108°57'58", Cibola County, about 1.5 miles north of Ojo Caliente.	-	1981-	- -81	5.04	(+)
09387300	Zuni River near NM.-AZ state line, N.Mex.	Lat 34°52'35", long 109°02'29", Cibola County, about 5 miles southwest of Ojo Caliente.	-	1981-	- -81	3.20	(+)
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-	10-22-78 10-21-79 07-16-81	h1.04 h0.92 0.84	h255 h210 190
		Gila River Basin					
09430300	Copperas Canyon near Pinos Altos, N. Mex.	Lat 33°04'42", long 108°12'14", Grant County, on east side of Copperas Canyon road and 15 miles north of Pinos Altos.	3.95	1963-	h08-13-80 - -81	5.02 (b)	h650 (+)
09430900	Duck Creek at Cliff, N. Mex.	Lat 32°58'03", long 108°36'36", Grant County, at Cliff below bridge on State Highway 211, and 0.6 mile above mouth.	a228	1957-	- -81	(b)	<1,050
09437200	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-	- -81	(b)	(+)
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-	08-11-81	4.43	540
09442630	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-	h11-24-78 08- -81	3.05 2.52	66 40
09442660	Trout Creek at Luna, N. Mex.	Lat 33°50'50", long 108°59'38", Catron County, 500 ft downstream from bridge on Luna-Red Hill road and 2.6 miles north of Luna.	31.9	1954-	h11-24-78 03-03-81	3.07 1.35	h720 60
09442695	Negro Canyon at Aragon, N. Mex.	Lat 33°52'47", long 108°33'08", Catron County, above culvert on State Highway 12, at west edge of Aragon.	9.62	1958-	h11-24-78 08-25-80 07-12-81	1.48 1.66 1.51	230 h255 230

Annual maximum discharge at crest-stage partial-record stations - Concluded

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Gila River Basin - Concluded					
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-	07-10-81	3.01	230
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-	07-13-81	9.63	(+)
09455800	Steins Creek at Steins, N. Mex.	Lat 32°13'47", long 109°00'01", Hidalgo County, at culvert on State Highway 14, 0.9 mile west of Steins.	1.26	1959-	- -81	(b)	<100

< Less than
+ 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.
h Revised.
j May not have been peak for year.

Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations are given in the following table.

Discharge measurements made at miscellaneous sites during water year 1981

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3)
		Rio Grande Basin				
Alamosa Creek 08360000	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, NM	403	1931-42 1958-71 1972-80	10-09-80 10-23-80 02-17-81 05-27-81 08-19-81	6.19 6.12 6.05 5.90 6.32
Rio Ruidoso 08386500	Rio Hondo	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 miles (4.8 km) west of Ruidoso.	17.2	1953-80	10-23-80 12-02-80 01-27-81 02-26-81 03-26-81 04-28-81 05-21-81	4.4 1.7 1.3 2.6 11 19 4.8
Carrizozo Creek 08386600	Rio Ruidoso	Lat 33°19'37", long 105°30'13", in SW¼NW¼SW¼ sec.26, T.11 S., R.13 E., Lincoln County, at mouth, at Ruidoso	24.2	1908-09 1953-80	10-23-80 01-27-81 02-26-81 03-26-81 04-28-81 05-21-81	3.6 3.7 3.6 4.1 3.2 3.1
Lea Lake Drain 08394018	Pecos River	Lat 33°18'56", long 104°19'56", in SW¼SE¼SW¼ sec. 34, T.11 S., R.26 E., Chaves County, just below road crossing at Bottomless Lake State Park visitor center southeast of Roswell.	-	1976-78	10-17-78 12-29-78 10-26-79 07-23-79 12-17-79 02-15-80 04-18-80 07-15-80 10-29-80 12-22-80 02-25-81 04-23-81 06-30-81 09-29-81	4.1 4.3 3.6 2.8 3.8 4.8 3.1 1.4 3.0 2.9 4.0 2.9 2.3 3.4
Blue Springs 08405450	Black River	Lat 32°11'07", long 104°16'50", in SW¼NE¼SW¼ sec.27, T.24 S., R.26 E., Eddy County, above all diversions, 5.5 miles east of White City, NM.	-	1907 1919-20 1923 1935 1952-70 1974-80	10-07-80 12-24-80 03-30-81 06-18-81 09-25-81	7.7 10 11 3.0 13
Castle Springs 08405490	Black River	Lat 32°11'59", long 104°15'13", in SW¼SW¼SW¼ sec. 24, T.24 S., R.26 E., above mouth at Black River Village, Eddy County, 7.2 miles east of White City, NM.	-	1975-80	10-07-80 12-24-80 03-30-81 06-18-81 09-25-81	0.55 2.1 1.8 0.08 1.2

Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations are given in the following table.

Discharge measurements made at miscellaneous sites during water year 1981

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3)
		Gila River basin				
Mangas Creek a09431100	Gila River	Lat 32°50'48", long 108°30'57", in NW¼NE¼ sec.8, T.17 S., R.16 W., Grant County, 0.4 mile northwest of Mangas Springs, NM.	177	1972-80	10-15-80	4.27
					11-05-80	3.89
					12-10-80	4.19
					01-27-81	3.84
					02-11-81	3.92
					03-25-81	3.50
					04-09-81	4.06
					05-12-81	3.11
					06-10-81	2.80
					07-07-81	3.97
					08-12-81	5.46
					09-10-81	3.64
		Arkansas River basin				
Chicorica Creek a07202000	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 9.0 miles south of Raton, NM.	381	1945-52† 1966-80	10-15-80	0.11
					11-13-80	.46
					12-09-80	.71
					01-07-81	.46
					02-03-81	1.3
Canadian River 07224500	Arkansas River	Lat 35°24'12", long 104°11'18", San Miguel County, in Pablo Montoya Grant, 300 ft below Conchas Dam,	7,417	1936-38† 1942-72† 1973-80	10-23-80	6.9
					11-19-80	4.5
					12-16-80	3.4
					01-14-81	5.0
					01-20-81	3.6
					03-17-81	4.6
					04-08-81	b3.5
					06-05-81	5.3
Canadian River c07227140	Arkansas River	Lat 35°23'35", long 103°02'30", in SW°sec.32, T.14 N., R.37 E., Quay County at New mexico-Texas State line 14.7 miles north of Glenrio, NM		1969-80	10-24-80	14
					11-20-80	18
					12-18-80	8.7
					02-19-81	2.0
					03-19-81	11
					05-14-81	3.7
					06-03-81	34
					07-15-81	114
					09-16-81	294

† Operated as a continuous record station.
a Also a water-quality partial record station.
b Estimated.
c Also a national stream-quality accounting network station.

Water-quality partial-record stations are particular sites where chemical-quality, biological and/or sediment data are collected systematically over a period of years for use in hydrologic analyses. The data are collected less than quarterly; usually one to three times a year. Under the heading SAMPLE SOURCE, numerical values are used to indicate method of sampling; 40 indicates single stage sample.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

RIO GRANDE BASIN

08405450 BLUE SPRINGS ABOVE DIVERSIONS, NM (LAT 32 11 07 LONG 104 16 5010)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT						
07...	1200	7.7	1540	7.6	--	15
DEC						
24...	0945	10	1550	7.7	17.0	14
MAR						
30...	1000	11	1560	7.8	21.0	12
JUN						
18...	1145	3.0	1550	7.6	22.0	--

SAN JUAN RIVER BASIN

WESTWATER ARROYO AT SAN JUAN POWERPLANT, NM (LAT 36 47 37 LONG 108 25 47 10)
(LOCAL IDENTIFIER-30N.15W.21.333)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
DEC										
01...	1330	E1.5	11500	6.2	14.0	16.5	.1	450	150	18
MAR										
04...	1420	2.2	10400	6.7	13.0	17.0	.3	810	170	93
JUN										
01...	1130	2.1	10500	7.1	21.5	24.5	.3	550	150	42
AUG										
28...	1045	2.2	10000	6.3	28.0	25.5	1.0	730	270	13

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
DEC										
01...	2800	58	11	6600	220	22	16	10200	--	.00
MAR										
04...	2700	41	9.2	6000	290	2.6	25	9700	.81	.81
JUN										
01...	2700	50	1.3	5500	200	3.0	20	9550	--	.05
AUG										
28...	2800	45	12	6000	320	5.2	25	9830	--	.02

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
DEC										
01...	.220	--	4.8	--	.250	2000	500	170	6.8	.2
MAR										
04...	.660	.670	4.3	5.8	.150	7400	540	280	7.8	1.2
JUN										
01...	.510	--	8.6	--	.060	9500	190	160	7.2	.6
AUG										
28...	1.20	--	12	--	.090	7200	270	250	6.4	.1

SAN JUAN RIVER BASIN - Continued

WESTWATER ARROYO AT SAN JUAN POWERPLANT, NM (LAT 36 47 37 LONG 108 25 47 10)
(LOCAL IDENTIFIER-30N.15W.21.333)

DATE	TIME	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
DEC 01...	1330	2000	1700	500	170	170
MAR 04...	1420	7400	3000	540	290	280
JUN 01...	1130	9500	640	190	160	160
AUG 28...	1045	7200	1100	270	230	250

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAR 04...	1430	2.2	17.0	320	73
JUN 01...	1115	2.1	24.5	115	--
AUG 28...	1045	2.2	25.5	739	98

POWERPLANT ARROYO BELOW SAN JUAN POWERPLANT RESERVOIR, NM (LAT 36 47 06 LONG 108 26 26 10)
(LOCAL IDENTIFIER-30N.15W.29.322)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
FEB 19...	1115	.23	5900	8.3	12.0	7.0	13.4	2400	2200	410	340
MAR 04...	1530	.16	6100	8.6	14.0	11.0	14.4	2300	--	380	340
JUN 01...	1400	.15	5900	8.1	29.0	26.0	10.1	2500	--	420	360
AUG 28...	1200	.20	5600	8.4	28.5	23.0	11.8	2400	--	410	340

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
FEB 19...	700	6.2	12	250	205	3700	110	.5	3.3	5990	5400
MAR 04...	740	6.6	9.2	--	--	3900	110	.3	3.6	6190	--
JUN 01...	710	6.1	3.1	--	--	3800	96	.3	3.8	6100	--
AUG 28...	760	6.7	12	--	--	3000	110	.6	5.5	5850	--

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
FEB 19...	--	--	--	--	330	80	180	--	--	--
MAR 04...	6.3	.130	.83	.040	330	50	150	10	.6	--
JUN 01...	2.8	.180	1.4	.050	400	130	30	9.9	.8	29.00
AUG 28...	3.7	.070	.91	.020	360	40	20	--	--	--

SAN JUAN RIVER BASIN - Continued

POWERPLANT ARROYO BELOW SAN JUAN POWERPLANT RESERVOIR, NM (LAT 36 47 06 LONG 108 26 26 10)
(LOCAL IDENTIFIER-30N.15W.29.322)

DATE	TIME	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SAMPLE SOURCE (72005)
FEB 19...	1115	330	140	80	160	180	--
MAR 04...	1530	330	1200	50	220	150	--
JUN 01...	1400	400	190	130	40	30	29.00
AUG 28...	1200	360	90	40	30	20	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SAMPLE SOURCE (72005)
MAR 04...	1530	.16	11.0	134	--
JUN 01...	1400	.15	26.0	140	29.00

SHUMWAY ARROYO ABOVE DUNLAP FARM NEAR WATERFLOW, NM (LAT 36 46 31 LONG 108 26 10 10)
(LOCAL IDENTIFIER-30N.15W.32.223)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
MAR 04...	1605	2.2	10800	6.5	13.0	14.0	.4	960	220	100
JUN 01...	1515	1.3	10500	6.9	32.0	28.0	.2	720	170	72
SEP 01...	1415	E3.0	8500	7.2	32.0	29.5	.4	760	230	44

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
MAR 04...	2200	31	8.5	5900	200	25	26	8970	.69
JUN 01...	2700	44	2.6	6100	250	22	20	9500	2.2
SEP 01...	2000	32	12	4400	260	3.2	20	7320	.00

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
MAR 04...	.680	3.7	.230	7200	460	490	7.7	1.5	--
JUN 01...	.400	8.6	.090	8900	270	220	7.2	1.0	29.00
SEP 01...	.540	8.2	.160	4800	60	420	6.6	1.1	--

DATE	TIME	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SAMPLE SOURCE (72005)
MAR 04...	1605	7200	5300	460	570	490	--
JUN 01...	1515	8900	840	270	220	220	29.00
SEP 01...	1415	4800	5000	60	460	420	--

SAN JUAN RIVER BASIN - Continued

SHUMWAY ARROYO ABOVE DUNLAP FARM NEAR WATERFLOW, NM (LAT 36 46 31 LONG 108 26 10 10)
(LOCAL IDENTIFIER-30N.15W.32.223)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
MAR						
04...	1610	2.2	14.0	610	90	--
JUN						
01...	1515	1.3	28.0	437	--	29.00
SEP						
01...	1415	E3.0	29.5	508	99	--

COAL CREEK ABOVE TANNER LAKE NEAR BISTI, NM (LAT 36 14 04 LONG 108 07 47 10)
(LOCAL IDENTIFIER-23N.12W.17.222)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SAMPLE SOURCE (72005)
JUL									
01...	1200	E20	4000	7.1	170	139	40	140	40.00
01...	1215	E20	4100	7.2	170	139	40	120	40.00
01...	1230	E80	4200	7.2	170	139	40	130	40.00

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
JUL					
01...	1200	E20	24800	100	40.00
01...	1215	E20	23300	99	40.00
01...	1230	E80	23700	100	40.00

09367700 ALAMO WASH NEAR TANNER LAKE, NM (LAT 36 14 07 LONG 108 10 52 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SAMPLE SOURCE (72005)
JUL										
01...	0330	E500	4900	8.0	170	--	139	170	10	40.00
AUG										
17...	1200	E500	690	7.7	270	0	221	--	--	40.00
17...	1210	E1000	710	7.7	270	0	221	--	--	40.00

DATE	TIME	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SAMPLE SOURCE (72005)
JUL						
01...	0330	320000	170	10000	10	40.00
AUG						
17...	1200	450000	--	15000	--	40.00
17...	1210	370000	--	11000	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
JUL											
01...	0330	E500	31700	--	--	--	--	--	--	95	40.00
AUG											
17...	1200	E500	54100	48	63	76	94	99	100	--	40.00

Samples are collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin. Such sites are referred to as miscellaneous sites. Under the heading SAMPLE SOURCE, numerical values are used to indicate method of sampling; 26 indicates by automatic pump, 29 indicates dip or grab, and 40 indicates single stage sample.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

RIO GRANDE BASIN

08276300 RIO PUEBLO DE TAOS BELOW LOS CORDOVAS, NM (LAT 36 22 39 LONG 105 40 05)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)
MAY 21...	1200	12	609	8.4	14.0	310	59	84	24	37	.9

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
MAY 21...	2.6	250	100	17	.5	19	436	.27	10	3

DATE	TIME	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
JUL 06...	1400	3

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-AZINON, TOTAL (UG/L) (39570)
JUL 06...	1400	.00	.00	.00	.00	.00	.00	.02

DATE	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)
JUL 06...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL TRI-THION, TOTAL (UG/L) (39790)	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	PER-THANE TOTAL (UG/L) (39034)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
JUL 06...	.00	.00	.00	0	.00	.00	.00	.00

BERNALILLO RIVERSIDE DRAIN NEAR NORTH BOUNDARY OF SANDIA PUEBLO, NM (LAT 35 18 32 LONG 106 33 32 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
SEP 15...	1520	206	470	8.0	28.0	21.0	6.4	56	190	50

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
SEP 15...	60	9.7	32	1.1	4.5	140	170	100	12	.4

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

RIO GRANDE BASIN - Continued

BERNALILLO RIVERSIDE DRAIN NEAR NORTH BOUNDARY OF SANDIA PUEBLO, NM (LAT 35 18 32 LONG 106 33 32 10)

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
SEP 15...	25	328	.08	.150	.64	.060	60	<10	2.9	.5

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)
SEP 15...	1520	5	5	100	110	60	0	<1	0	0	0

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
SEP 15...	1	<10	0	1	.1	.0	0	0	0	20	8

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
SEP 15...	1520	31	90

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
SEP 15...	1520	206	21.0	692	6

RIVERSIDE DRAIN 100 FEET UPSTREAM FROM BERNALILLO SEWAGE EFFLUENT, NM (LAT 35 18 24 LONG 106 33 38 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
DEC 17...	1220	109	470	8.1	16.0	13.0	8.0	1	170	38	53

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
DEC 17...	8.6	32	1.1	.5	130	93	10	.3	26	302

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
DEC 17...	.12	.11	.060	.67	.85	.040	.040	60	10	10

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

RIO GRANDE BASIN - Continued

RIVERSIDE DRAIN 100 FEET UPSTREAM FROM BERNALILLO SEWAGE EFFLUENT, NM (LAT 35 18 24 LONG 106 33 38 10)

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
DEC 17...	1220	6	5	100	80	60	0	<1	0	0	3	0

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
DEC 17...	<10	1	2	.1	.0	0	0	0	0	40	10

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
DEC 17...	1220	1	15

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
DEC 17...	1220	109	13.0	32

RIVERSIDE DRAIN 200 FEET DOWNSTREAM FROM BERNALILLO SEWAGE EFFLUENT, NM (LAT 35 18 23 LONG 106 33 38 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
DEC 17...	1430	109	470	8.1	15.0	13.5	8.3	4	170	38	53

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
DEC 17...	8.7	30	1.0	3.9	130	86	10	.3	26	297

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
DEC 17...	.15	.12	.180	.38	.71	.090	.070	60	<10	4.1

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

RIO GRANDE BASIN - Continued

RIVERSIDE DRAIN 200 FEET DOWNSTREAM FROM BERNALILLO SEWAGE EFFLUENT, NM (LAT 35 18 23 LONG 106 33 38 10)

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
DEC 17...	1430	6	5	100	80	60	0	<1	0	0	3	0

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
DEC 17...	<10	3	3	.1	.0	0	0	0	0	120	10

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
DEC 17...	1430	2	44

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
DEC 17...	1430	109	13.5	43

BERNALILLO ACEQUIA NEAR NORTH BOUNDARY OF SANDIA PUEBLO, NM (LAT 35 18 04 LONG 106 32 31 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
SEP 17...	1345	3.3	378	7.8	28.0	21.5	7.7	59	160	37

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
SEP 17...	49	8.3	27	1.0	3.8	120	150	83	6.1	.4

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
SEP 17...	19	269	.00	.140	.52	.050	40	16	3.7

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
SEP 17...	1345	370	9900

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

RIO GRANDE BASIN - Continued

BERNALILLO ACEQUIA NEAR NORTH BOUNDARY OF SANDIA PUEBLO, NM (LAT 35 18 04 LONG 106 32 31 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
SEP 17...	1345	3.3	21.5	64

ALBUQUERQUE MAIN CANAL NEAR NORTH BOUNDARY OF SANDIA PUEBLO, NM (LAT 35 17 55 LONG 106 33 47 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
SEP 15...	1245	146	388	8.2	28.0	20.0	7.7	63	160	41

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
SEP 15...	51	8.1	24	.9	3.8	120	160	89	6.7	.4

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
SEP 15...	20	275	.00	.140	.64	.130	30	<10	3.1	1.7

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
SEP 15...	1245	200	490

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
SEP 15...	1245	146	20.0	390

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

RIO GRANDE BASIN - Continued

SANDIA ACEQUIA NEAR NORTH BOUNDARY OF SANDIA PUEBLO, NM (LAT 35 17 38 LONG 106 33 31 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
SEP 15...	1045	16	395	7.8	23.5	20.0	8.0	56	170	47

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
SEP 15...	53	8.4	26	.9	3.8	120	160	89	6.6	.4

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
SEP 15...	20	280	.21	.130	.68	.100	40	<10	3.3	1.1

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)
SEP 15...	1045	4	3	200	100	40	0	<1	0	0	0

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
SEP 15...	2	<10	0	1	.1	.0	0	0	0	30	8

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
SEP 15...	1045	40000	40000

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
SEP 15...	1045	16	20.0	177	87

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

RIO GRANDE BASIN - Continued

BERNALILLO INTERIOR DRAIN NEAR BERNALILLO, NM (LAT 35 17 35 LONG 106 33 28 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
SEP 17...	1130	.43	1100	7.4	22.5	18.5	6.5	100	250	.00

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
SEP 17...	80	11	180	5.2	11	260	320	140	180	1.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
SEP 17...	66	826	.00	.130	.56	.040	350	22	2.2	.3

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
SEP 17...	1130	83	120

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
SEP 17...	1130	.43	18.5	36

BERNALILLO RIVERSIDE DRAIN NEAR SOUTH BOUNDARY OF SANDIA PUEBLO, NM (LAT 35 15 58 LONG 106 35 35 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
SEP 18...	1125	322	448	7.6	22.5	19.0	7.7	76	180	46

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
SEP 18...	56	8.7	29	1.0	4.1	130	170	98	11	.4

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
SEP 18...	22	308	.06	.190	.76	.140	60	<10	3.1	12

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

RIO GRANDE BASIN - Continued

BERNALILLO RIVERSIDE DRAIN NEAR SOUTH BOUNDARY OF SANDIA PUEBLO, NM (LAT 35 15 58 LONG 106 35 35 10)

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
SEP 18...	1125	370	1200

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
SEP 18...	1125	322	19.0	281

SANDIA ACEQUIA NEAR SOUTH BOUNDARY OF SANDIA PUEBLO, NM (LAT 35 12 52 LONG 106 35 41 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
SEP 18...	0915	3.7	374	7.8	19.0	17.5	7.8	82	160	42	51

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
SEP 18...	8.5	25	.9	3.6	120	220	80	6.2	.4	19

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
SEP 18...	266	.02	.300	.110	2.2	.530	30	12	3.8	6.0

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
SEP 18...	0915	1500	7400

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
SEP 18...	0915	3.7	17.5	1070

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

RIO GRANDE BASIN - Continued
RIO SAN JOSE 1.9 MILES WEST OF McCARTY, NM (LAT 35 03 48 LONG 107 42 33 10)
(LOCAL IDENTIFIER-10N.08W.29.323)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
SEP												
11...	1311	2.4	1200	8.3	28.0	18.5	9.3	40	370	150	160	86

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
SEP												
11...	37	130	3.2	6.5	272	0	223	210	260	120	.8	30

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
SEP											
11...	808	.83	.86	.140	.62	1.6	.450	300	<10	2.4	.8

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)
SEP								
11...	1311	8	8	100	60	300	0	<1

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)
SEP									
11...	10	0	0	0	0	<10	100	0	.1

DATE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
SEP								
11...	.0	5	<10	4	0	12	20	<3

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
SEP									
11...	1311	<22	1.5	<9.6	2.4	<9.3	2.2	.06	3.2

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
SEP			
11...	1311	37	88

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

RIO GRANDE BASIN - Continued
RIO SAN JOSE 3.2 MILES WEST OF ACOMITA, NM (LAT 35 03 28 LONG 107 37 43 10)
(LOCAL IDENTIFIER-10N.08W.36.221)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
SEP											
10...	1200	4.5	1400	8.4	27.0	19.5	7.7	55	440	180	200

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
SEP											
10...	96	48	180	4.1	7.0	320	0	262	240	400	140

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
SEP											
10...	.9	26	1060	.35	.060	.94	.460	360	<10	3.8	2.5

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
SEP									
10...	1200	7	6	200	72	360	0	<1	20

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)
SEP									
10...	0	4	0	2	<10	100	0	.1	.0

DATE	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
SEP								
10...	5	<10	3	3	0	9.0	50	<3

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
SEP									
10...	1200	<31	27	<12	17	<11	16	.13	4.3

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
SEP			
10...	1200	550	2500

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

RIO GRANDE BASIN - Continued
RIO SAN JOSE 3.2 MILES WEST OF ACOMITA, NM (LAT 35 03 28 LONG 107 37 43 10)
(LOCAL IDENTIFIER-10N.08W.36.221)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
SEP 10...	1200	4.5	19.5	569

ARENAL MAIN CANAL NEAR NORTH BOUNDARY OF ISLETA PUEBLO, NM (LAT 34 57 24 LONG 106 42 13 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
SEP 23...	0835	3.2	500	8.1	16.0	18.5	7.9	38	180	43

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
SEP 23...	58	9.2	32	1.1	4.1	140	170	100	13	.4

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
SEP 23...	23	324	.00	.100	.75	.080	60	<10	2.9

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
SEP 23...	0835	350	900

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
SEP 23...	0835	3.2	18.5	124

LOS PADILLAS DRAIN NEAR NORTH BOUNDARY OF ISLETA PUEBLO, NM (LAT 34 57 23 LONG 106 41 56 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
SEP 23...	1000	7.2	820	7.7	19.5	17.0	5.2	39	330	62

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
SEP 23...	110	14	63	1.6	6.0	270	350	160	14	.6

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

RIO GRANDE BASIN - Continued

LOS PADILLAS DRAIN NEAR NORTH BOUNDARY OF ISLETA PUEBLO, NM (LAT 34 57 23 LONG 106 41 56 10)

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
SEP 23...	36	568	.46	.130	.97	.100	120	<10	3.9	.4

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
SEP 23...	1000	560	750

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
SEP 23...	1000	7.2	17.0	97

ISLETA LATERAL CANAL NEAR NORTH BOUNDARY OF ISLETA PUEBLO, NM (LAT 34 57 17 LONG 106 41 24 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
SEP 24...	1100	44	505	8.1	20.0	17.5	8.1	35	190	55

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
SEP 24...	59	9.1	32	1.1	4.3	130	170	97	15	.4

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
SEP 24...	24	319	.03	.160	.47	.120	80	<10	3.4	.7

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)
SEP 24...	1100	5	6	200	120	80	0	<1	10	0	0

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
SEP 24...	2	<10	0	0	.2	.0	0	0	0	40	4

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

RIO GRANDE BASIN - Continued

ISLETA LATERAL CANAL NEAR NORTH BOUNDARY OF ISLETA PUEBLO, NM (LAT 34 57 17 LONG 106 41 24 10)

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
SEP 24...	1100	730	1900

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
SEP 24...	1100	44	17.5	94	93

ATRISCO RIVERSIDE DRAIN NEAR NORTH BOUNDARY OF ISLETA, PUEBLO, NM (LAT 34 57 10 LONG 106 41 07 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
SEP 24...	1340	33	22.0	19.0	6.5	35	200	51	65	9.4

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
SEP 24...	41	1.3	5.4	150	190	100	20	.5	27

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
SEP 24...	360	.23	.220	.39	.610	110	10	4.2	.3

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)
SEP 24...	1340	7	6	200	0	110	0	0	10	0	0

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
SEP 24...	1	10	0	1	.1	.0	0	0	0	20	10

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

RIO GRANDE BASIN - Continued

ATRISCO RIVERSIDE DRAIN NEAR NORTH BOUNDARY OF ISLETA, PUEBLO, NM (LAT 34 57 10 LONG 106 41 07 10)

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
SEP 24...	1340	170	270

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
SEP 24...	1340	33	19.0	23	92

ALBUQUERQUE RIVERSIDE DRAIN NEAR NORTH BOUNDARY OF ISLETA PUEBLO, NM (LAT 34 56 45 LONG 106 40 42 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
SEP 25...	0935	122	520	7.6	22.0	17.0	6.3	34	190	40

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
SEP 25...	60	9.7	40	1.3	5.0	150	200	99	20	.5

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
SEP 25...	28	354	.31	.330	.49	.120	100	<10	3.7	.6

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
SEP 25...	0935	810	1000

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
SEP 25...	0935	122	17.0	457

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

RIO GRANDE BASIN - Continued

ISLETA RIVERSIDE DRAIN NEAR SOUTH BOUNDARY OF ISLETA PUEBLO, NM (LAT 34 52 42 LONG 106 43 03 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
SEP 24...	1400	38	565	7.8	23.0	19.5	7.2	42	210	49

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
SEP 24...	67	10	40	1.3	5.2	160	210	110	17	.5

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
SEP 24...	26	372	.06	.100	.70	.040	90	<10	3.6	1.1

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
SEP 24...	1400	2300	4600

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
SEP 24...	1400	38	19.5	151

TOME DRAIN NEAR SOUTH BOUNDARY OF ISLETA PUEBLO, NM (LAT 34 52 34 LONG 106 40 40 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
SEP 25...	1212	9.8	750	7.4	28.5	18.0	3.9	<8	300	37

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
SEP 25...	99	12	57	1.5	5.9	260	320	130	14	.6

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
SEP 25...	39	515	.25	.100	.77	.090	130	12	4.0	.3

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

RIO GRANDE BASIN - Continued

TOME DRAIN NEAR SOUTH BOUNDARY OF ISLETA PUEBLO, NM (LAT 34 52 34 LONG 106 40 40 10)

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
SEP 25...	1212	K100	150

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
SEP 25...	1212	9.8	18.0	46

JETTER MINE POND 10 MILES WEST OF ABEYTAS, NM (LAT 34 26 31 LONG 107 00 58 01)
(LOCAL IDENTIFIER - 03N.02W.35.233)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)
MAY 15...	1400	550	7.7

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)
MAY 15...	1400	490	24	160	220	150	210

POND 0.5 MILE WEST OF BERNARDO, NM (LAT 34 25 00 LONG 106 50 33 01)
(LOCAL IDENTIFIER - 02N.01E.09.213)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
AUG 20...	0920	2690	7.8	25.0	280	120	66	29	440	11	7.1

DATE	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
AUG 20...	160	530	430	.7	31	1610	1630	.49	600	50	20

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
AUG 20...	0920	5	100	600	0	0	1

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

RIO GRANDE BASIN - Continued

POND 0.5 MILE WEST OF BERNARDO, NM (LAT 34 25 00 LONG 106 50 33 01)
(LOCAL IDENTIFIER - 02N.01E.09.213)

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
AUG 20...	50	1	20	.0	0	0	50

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
AUG 20...	0920	<37	<.4	<.21	<.4	20	<.4	7.9

RIO SALADO 1.25 MILES NORTH OF SAN ACACIA, NM (LAT 34 17 30 LONG 106 53 35 10)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)
AUG 20...	0900	1490	22.0	390	260	120	22	160	3.7	6.3	130

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
AUG 20...	350	180	.6	13	946	934	.86	130	<10	2

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
AUG 20...	0900	1	200	130	<1	0	3

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
AUG 20...	<10	0	2	.0	1	0	25

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
AUG 20...	0900	<27	6.5	<14	5.4	<13	5.1	4.6

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

PECOS RIVER BASIN

FORT STANTON CAVE 1.0 MILE EAST OF FORT STANTON HOSPITAL AT FORT STANTON, NM (LAT 33 30 30 LONG 105 29 36 01)
(LOCAL IDENTIFIER - 09S.15E.20)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (UNITS) (00400)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS NONCARBONATE (MG/L AS CACO3) (95902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY LAB (MG/L AS CACO3) (90410)
AUG 14...	1200	700	7.1	330	210	100	20	34	.9	1.7	120

DATE	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
AUG 14...	220	34	.6	19	488	504	.50	20	14	<1

DATE	TIME	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, DISSOLVED (UG/L AS CU) (01040)
AUG 14...	1200	1	40	20	<1	0	1

DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
AUG 14...	14	0	<1	.1	0	0	5

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
AUG 14...	1200	<10	5800	<5.4	4300	<5.2	4100	1.4

BONITO CREEK 2.0 MILES WEST OF FORT STANTON HOSPITAL AT FORT STANTON, NM (LAT 33 27 50 LONG 105 35 00 10)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS NONCARBONATE (MG/L AS CACO3) (95902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
JUL 30...	1045	1350	7.8	24.0	590	450	170	39	65	1.2	1.8

DATE	ALKALINITY LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
JUL 30...	140	400	110	.5	18	935	890	.22	30	<10	1

DATE	TIME	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, DISSOLVED (UG/L AS CU) (01040)
JUL 30...	1045	1	110	30	<1	0	2

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

PECOS RIVER BASIN - Continued

BONITO CREEK 2.0 MILES WEST OF FORT STANTON HOSPITAL AT FORT STANTON, NM (LAT 33 27 50 LONG 105 35 00 10)

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
JUL 30...	<10	2	1	.3	0	0	9

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
JUL 30...	1045	<20	.8	<9.6	.8	<9.3	.7	2.9

HONDO RIVER 1.0 MILE ABOVE TWO RIVERS RESERVOIR NEAR ROSWELL, NM (LAT 33 18 14 LONG 104 44 42 10)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
AUG 11...	1000	900	7.6	19.0	620	510	180	42	29	.5	4.3

DATE	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
AUG 11...	110	380	30	.3	16	713	753	.96	40	490	42

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
AUG 11...	1000	1	110	40	<1	10	3

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
AUG 11...	490	3	42	.0	1	0	13

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
AUG 11...	1000	<9.2	1100	<6.3	710	<6.0	680	.8

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

PECOS RIVER BASIN - Continued
ENDLESS CAVE 14.0 MILES WEST OF CARLSBAD, NM (LAT 32 22 51 LONG 104 28 15 01)
(LOCAL IDENTIFIER - 22S.24E.23)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (UNITS) (00400)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS NONCARBONATE (MG/L AS CACO3) (95902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY LAB (MG/L AS CACO3) (90410)
AUG											
13...	1200	600	7.7	330	200	50	49	8.9	.2	.9	130

DATE	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
AUG										
13...	150	14	.6	14	430	414	11	30	<10	<1

DATE	TIME	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, DISSOLVED (UG/L AS CU) (01040)
AUG							
13...	1200	1	50	30	<1	0	3

DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
AUG							
13...	<10	2	<1	.0	1	0	8

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
AUG								
13...	1200	<9.8	.8	<4.6	.6	<4.4	.6	<.6

CASTLE SPRING ABOVE DIVERSION DAM AT MILE 15.4, NM (LAT 32 11 59 LONG 104 15 13 10)
(LOCAL IDENTIFIER - 24S.26E.24.441)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
OCT							
07...	1100	7.7	1920	7.2	21.0	27.0	26
MAR							
30...	1100	1.8	1990	7.6	21.0	17.0	21
JUN							
18...	1040	.08	2010	7.6	21.0	19.5	--

SAN JUAN BASIN
SAN JUAN MINE 1974 RECLAMATION PLOT NEAR FRUITLAND, NM (LAT 36 46 37 LONG 108 25 10 10)
(LOCAL IDENTIFIER - 30N.15W.33.212)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (UNITS) (00400)	HARDNESS (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE FET-FLD (MG/L AS HCO3) (00440)
JUL										
01...	0630	3000	7.4	--	--	--	--	--	--	180
12...	0200	460	6.9	130	40	7.1	29	1.2	18	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SAN JUAN BASIN
SAN JUAN MINE 1974 RECLAMATION PLOT NEAR FRUITLAND, NM (LAT 36 46 37 LONG 108 25 10 10)
(LOCAL IDENTIFIER - 30N.15W.33.212)

DATE	CARBONATE FET-FLD (MG/L AS CO3) (00445)	ALKALINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
JUL										
01...	--	148	--	--	--	--	--	--	50	30
12...	270	--	7.0	13	.3	14	252	150	1600	1000

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE) (01012)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)
JUL								
01...	0630	--	--	--	--	--	--	210000
12...	0200	50	20	150	1	120	400	190000

DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	SELENIUM, TOTAL (UG/L AS SE) (01147)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)
JUL								
01...	50	--	7000	30	--	--	--	--
12...	1600	180	4900	1000	1.3	130	4	780

DATE	TIME	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)
JUL							
01...	0630	17200	--	--	--	95	--
12...	0200	11100	54	65	86	99	100

SAN JUAN MINE 1977 GRADED PILE NEAR FRUITLAND, NM (LAT 36 46 31 LONG 108 25 08 10)
(LOCAL IDENTIFIER - 30N.15W.33.214)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (UNITS) (00400)	HARDNESS (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE FET-FLD (MG/L AS HCO3) (00440)
JUL										
01...	0600	5500	7.2	--	--	--	--	--	--	170
12...	0230	850	6.7	300	99	12	80	2.1	15	--

DATE	CARBONATE FET-FLD (MG/L AS CO3) (00445)	ALKALINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
JUL										
01...	--	139	--	--	--	--	--	--	50	120
12...	260	--	310	4.1	.4	15	665	240	12000	1700

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE) (01012)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)
JUL								
01...	0600	--	--	--	--	--	--	170000
12...	0230	170	30	240	1	200	900	190000

SAN JUAN BASIN - Continued

SAN JUAN MINE 1977 GRADED PILE NEAR FRUITLAND, NM (LAT 36 46 31 LONG 108 25 08 10)
(LOCAL IDENTIFIER - 30N.15W.33.214)

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)
JUL								
01...	50	--	4100	120	--	--	--	--
12...	12000	180	5100	1700	3.7	130	4	740

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JUL							
01...	0600	13700	--	--	--	--	98
12...	0230	18200	49	65	85	100	--

KIM-ME-NI-OLI WASH AT PHILIP'S NOSEROCK MINE, NM (LAT 35 50 06 LONG 108 03 17 10)
LOCAL IDENTIFIER - 19N.11W.31.1331)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
APR									
22...	1300	7.1	2070	9.3	35	0	.00	12	1.2

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
APR									
22...	450	33	2.5	220	36	240	240	550	75

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
APR								
22...	1.4	15	1250	.15	.020	170	40	0

DATE	TIME	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)
APR					
22...	1300	170	40	0	3

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
APR									
22...	1300	<39	1.5	<16	.7	<16	.7	3.3	2.6

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SAN JUAN BASIN - Continued

KIM-ME-NI-OLI WASH AT PHILIP'S NOSEROCK MINE, NM (LAT 35 50 06 LONG 108 03 17 10)
LOCAL IDENTIFIER - 19N.11W.31.1331)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
APR 22...	1300	7.1	19

KIM-ME-NI-OLI WASH NEAR CROWNPOINT, NM (LAT 35 51 02 LONG 108 03 31 10)
(LOCAL IDENTIFIER-19N.12W.25.243)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
AUG 18...	1215	4.0	2180	8.7	23.0	24.5	7.2	130	120	.00

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
AUG 18...	4.9	26	400	16	3.2	240	590	93	1.7	15

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
AUG 18...	1280	.16	.080	3.3	1.30	190	310	10	2.3

DATE	TIME	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, TOTAL (UG/L AS SB) (01097)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)
AUG 18...	1215	32000	10	2	0	10	2	600	0	0	0

DATE	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
AUG 18...	190	0	0	60	4	29	2	150	2	85000	310

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)
AUG 18...	60	4	140	70	1100	10	.6	.0	12	12	44

DATE	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
AUG 18...	1	3	1	1	0	1100	500	3.0	370	10

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SAN JUAN BASIN - Continued

KIM-ME-NI-OLI WASH NEAR CROWNPOINT, NM (LAT 35 51 02 LONG 108 03 31 10)
(LOCAL IDENTIFIER - 19N.12W.25.243)

DATE	TIME	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)
AUG 18...	1215	180	6	<1	2	0	5

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	MOLYBDENUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01063)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G) (01148)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
AUG 18...	2300	10	170	.01	<1	0	22

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
AUG 18...	1215	<32	310	<19	220	<18	220	.09	2.7

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)
AUG 18...	1150	4.0	23.0	4280	100	5	28	94	98	100

KIM-ME-NI-OLI WASH 6.0 MILES EAST OF MILK LAKE, NM (LAT 35 55 04 LONG 108 07 34 10)
(LOCAL IDENTIFIER - 20N.12W.33.331)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS NONCARBONATE (MG/L AS CACO3) (95902)
AUG 18...	1550	1.8	2190	9.0	27.0	28.0	9.4	79	56	.00

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)
AUG 18...	17	3.0	470	28	4.0	320	570	81	1.5	10

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)
AUG 18...	1350	.12	.240	1.1	.220	200	950	50	5.6

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SAN JUAN BASIN - Continued
KIM-ME-NI-OLI WASH 6.0 MILES EAST OF MILK LAKE, NM (LAT 35 55 04 LONG 108 07 34 10)
(LOCAL IDENTIFIER - 20N.12W.33.331)

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ANTIMONY, TOTAL (UG/L AS SB) (01097)	ANTIMONY, DISSOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE) (01012)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)
AUG 18...	1550	900	450	1	1	5	4	0	100	0	0

DATE	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)
AUG 18...	200	0	1	20	2	3	2	14	7	11000	950

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI) (01132)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)
AUG 18...	9	7	80	70	170	50	.3	.1	10	11	3

DATE	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR) (01082)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
AUG 18...	2	1	1	0	0	870	750	6.0	40	30

DATE	TIME	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)
AUG 18...	1550	310	22	1	2	0	7

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	MOLYBDENUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01063)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G) (01148)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
AUG 18...	2800	10	800	.02	<1	0	11

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
AUG 18...	1550	<41	22	<23	17	<22	17	.16	2.2

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)
AUG 18...	1530	1.8	27.0	355	99	26	26	29

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SAN JUAN BASIN - Continued
KIM-ME-NI-OLI WASH 6.0 MILES EAST OF MILK LAKE, NM (LAT 35 55 04 LONG 108 07 34 10)
(LOCAL IDENTIFIER - 20N.12W.33.331)

DATE	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
AUG							
18...	30	30	36	51	73	93	100

KIM-ME-NI-OLI WASH NEAR LAKE VALLEY, NM (LAT 35 58 41 LONG 108 08 18 10)
(FORMERLY PUBLISHED AS KIM-ME-NI-OLI WASH NEAR PHILIPS MINE NEAR CROWNPOINT, NM)
LOCAL IDENTIFIER - 20N. 12W.08.323)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
APR										
22...	1500	5.0	2170	9.0	--	18.5	--	--	59	0
AUG										
18...	1000	E2.9	1930	8.0	--	--	--	--	--	--
18...	1200	2.9	2200	8.5	29.0	20.0	--	--	50	--
18...	1750	2.9	2200	9.0	34.0	24.5	6.7	81	55	--

DATE	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)
APR									
22...	.00	20	2.3	460	26	3.4	300	28	293
AUG									
18...	--	--	--	--	--	--	--	--	--
18...	.00	16	2.5	460	28	3.5	--	--	--
18...	.00	17	2.7	460	27	3.3	--	--	--

DATE	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
APR									
22...	290	--	--	610	84	1.5	13	1370	.03
AUG									
18...	--	--	--	--	--	--	--	--	--
18...	270	10	320	610	87	1.9	14	1360	--
18...	270	--	--	570	92	1.5	11	1320	<.10

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	SAMPLE SOURCE (72005)
APR									
22...	--	--	--	.030	190	340	10	--	--
AUG									
18...	--	--	--	--	--	--	--	--	40.00
18...	--	--	--	--	200	90	--	--	--
18...	.380	.92	.240	--	190	180	0	5.2	--

DATE	TIME	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, TOTAL (UG/L AS SB) (01097)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)
APR											
22...	1500	--	--	--	--	--	--	--	--	--	--
AUG											
18...	1000	--	--	--	--	--	--	--	--	--	--
18...	1750	1100	40	1	1	5	3	200	100	0	0

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SAN JUAN BASIN - Continued
KIM-ME-NI-OLI WASH NEAR LAKE VALLEY, NM (LAT 35 58 41 LONG 108 08 18 10)
(FORMERLY PUBLISHED AS KIM-ME-NI-OLI WASH NEAR PHILIPS MINE NEAR CROWNPOINT, NM)
LOCAL IDENTIFIER - 20N. 12W.08.323)

DATE	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
APR											
22...	190	--	--	--	--	--	--	--	--	--	340
AUG											
18...	--	--	--	--	--	--	--	--	--	68000	--
18...	190	0	0	10	4	4	1	16	3	12000	180

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)
APR											
22...	--	--	--	--	--	10	--	--	--	--	--
AUG											
18...	--	--	--	--	1000	--	--	--	--	--	--
18...	9	2	80	70	210	0	.1	.0	10	13	4

DATE	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
APR											
22...	--	3	--	--	--	--	--	--	--	--	--
AUG											
18...	--	--	--	--	--	--	--	--	--	--	40.00
18...	0	1	1	1	0	970	790	5.0	50	10	--

DATE	TIME	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)
AUG							
18...	1750	280	6	1	6	0	17

DATE	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	MOLYB-DENUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01063)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G) (01148)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)
AUG							
18...	9000	20	210	.03	2	0	44

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L) (80020)
APR										
22...	1500	<46	21	<19	<11	<17	<10	.14	2.8	--
AUG										
18...	1750	<29	43	<16	21	<16	20	.12	--	1.9

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SAN JUAN BASIN - Continued

KIM-ME-NI-OLI WASH NEAR LAKE VALLEY, NM (LAT 35 58 41 LONG 108 08 18 10)
(FORMERLY PUBLISHED AS KIM-ME-NI-OLI WASH NEAR PHILIPS MINE NEAR CROWNPOINT, NM)
(LOCAL IDENTIFIER - 20N. 12W.08.323)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	SAMPLE SOURCE (72005)
APR										
22...	1500	5.0	18.5	339	92	--	--	--	--	--
AUG										
18...	1000	E2.9	--	3640	99	--	--	--	--	40.00
18...	1200	2.9	20.0	363	99	--	--	--	--	--
18...	1730	2.9	24.0	413	100	59	78	99	100	--

KIM-ME-NI-OLI WASH AT KIM-ME-NI-OLI RUINS, NM (LAT 36 00 23 LONG 108 09 09 10)
(LOCAL IDENTIFIER - 21N.12W.31.414)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)
AUG												
18...	1335	4.0	2200	8.7	28.5	21.0	57	.00	19	2.2	450	26

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
AUG											
18...	3.4	270	16	310	640	87	1.8	15	1380	200	140

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
AUG					
18...	1335	4.0	21.0	360	99

KIM-ME-NI-OLI WASH 1.1 MILES SOUTH OF LAKE VALLEY, NM (LAT 36 04 32 LONG 108 08 58 10)
(LOCAL IDENTIFIER - 21N.12W.07.222)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)
AUG										
18...	1400	4.1	2450	8.9	34.5	26.5	8.0	71	88	.00

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
AUG										
18...	3.8	19	520	24	5.4	320	670	100	1.9	8.7

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
AUG										
18...	1520	.24	.120	1.7	.220	230	630	10	8.1	4.0

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SAN JUAN BASIN - Continued
KIM-ME-NI-OLI WASH 1.1 MILES SOUTH OF LAKE VALLEY, NM (LAT 36 04 32 LONG 108 08 58 10)
(LOCAL IDENTIFIER - 21N.12W.07.222)

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ANTIMONY, TOTAL (UG/L AS SB) (01097)	ANTIMONY, DISSOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE) (01012)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)
AUG 18...	1400	1500	10	1	0	7	5	100	0	0	0

DATE	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)
AUG 18...	230	0	0	10	2	5	1	21	18	18000	630

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI) (01132)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)
AUG 18...	12	2	90	80	210	10	.1	.0	13	13	6

DATE	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR) (01082)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
AUG 18...	0	1	1	0	0	760	590	6.0	60	20

DATE	TIME	PHOSPHORUS, TOTAL IN BOTTOM MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)
AUG 18...	1400	220	6	<1	3	0	10

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	MOLYBDENUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01063)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G) (01148)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
AUG 18...	4000	10	300	.02	1	0	17

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
AUG 18...	1400	<32	26	<18	21	<17	20	.13	2.2

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SAN JUAN BASIN - Continued

KIM-ME-NI-OLI WASH 1.1 MILES SOUTH OF LAKE VALLEY, NM (LAT 36 04 32 LONG 108 08 58 10)
(LOCAL IDENTIFIER - 21N.12W.07.222)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)
AUG 18...	1400	4.1	26.5	627	99	75	95	100

JUANS LAKE AT OUTFLOW AT LAKE VALLEY, NM (LAT 36 05 34 LONG 108 09 38 10)
(LOCAL IDENTIFIER - 22N.12W.31.341)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
APR 22...	1630	E10	2940	8.5	--	--	--	--	82	0	.00	25
AUG 18...	1820	.21	3500	9.1	29.0	25.0	11.5	100	81	--	.00	21

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
APR 22...	4.8	610	29	5.7	490	8	415	420	760	120	2.1	12
AUG 18...	6.7	830	40	7.3	--	--	--	480	1000	170	2.7	4.1

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
APR 22...	1800	.51	--	--	--	.040	250	280	10	--	--
AUG 18...	2330	.07	.080	2.3	.150	--	350	550	10	9.4	1.6

DATE	TIME	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, TOTAL (UG/L AS SB) (01097)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)
APR 22...	1630	--	--	--	--	--	--	--	--	--	--
AUG 18...	1820	6200	180	1	1	8	6	100	0	0	0

DATE	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
APR 22...	250	--	--	--	--	--	--	--	--	--	280
AUG 18...	350	0	1	10	0	3	4	10	6	7300	550

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SAN JUAN BASIN - Continued
JUANS LAKE AT OUTFLOW AT LAKE VALLEY, NM (LAT 36 05 34 LONG 108 09 38 10)
(LOCAL IDENTIFIER - 22N.12W.31.341)

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)
APR											
22...	--	--	--	--	--	10	--	--	--	--	--
AUG											
18...	15	0	110	100	160	10	.1	.0	13	17	5

DATE	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
APR										
22...	--	1	--	--	--	--	--	--	--	--
AUG										
18...	3	1	1	0	0	700	750	7.0	30	20

DATE	TIME	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	MOLYB-DENUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01063)
AUG			
18...	1820	310	X1

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
AUG									
18...	1820	<55	13	<.27	11	<26	10	.07	2.4

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
APR					
22...	1630	E10	--	297	98
AUG					
18...	1820	.21	25.0	359	99

KIM-ME-NI-OLI WASH ABOVE JUANS LAKE AT LAKE VALLEY, NM (LAT 36 05 39 LONG 108 09 15 10)
(LOCAL IDENTIFIER - 22N.12W.31.4143)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
APR										
22...	1610	2.0	2480	8.5	19.5	73	0	.00	24	3.2

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
APR									
22...	500	25	4.6	410	12	356	360	720	100

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SAN JUAN BASIN - Continued

KIM-ME-NI-OLI WASH ABOVE JUANS LAKE AT LAKE VALLEY, NM (LAT 36 05 39 LONG 108 09 15 10)
(LOCAL IDENTIFIER - 22N.12W.31.4143)

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
APR 22...	1.9	5.2	1580	.52	.410	.070	230	640	10

DATE	TIME	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	SELENIUM, TOTAL (UG/L AS SE) (01147)
APR 22...	1610	230	640	10	2

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
APR 22...	1610	<42	37	<.20	28	<.19	27	.09	3.0

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
APR 22...	1610	2.0	19.5	594	99

KIM-ME-NI-OLI WASH 0.7 MILE SOUTHWEST OF LA VIDA MISSION, NM (LAT 36 06 41 LONG 108 10 38 10)
(FORMERLY PUBLISHED AS KIM-ME-NI-OLI WASH NEAR LAKE VALLEY, NM)
(LOCAL IDENTIFIER -22N.13W.25.322)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS NONCARBONATE (MG/L AS CACO3) (95902)
AUG 18...	1630	.21	3500	9.1	29.0	27.0	8.1	100	62	.00

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)
AUG 18...	15	5.7	810	45	7.2	490	1100	180	2.8	.8

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)
AUG 18...	2420	.09	.100	2.4	.200	370	390	10	11

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SAN JUAN BASIN - Continued
KIM-ME-NI-OLI WASH 0.7 MILE SOUTHWEST OF LA VIDA MISSION, NM (LAT 36 06 41 LONG 108 10 38 10)
(FORMERLY PUBLISHED AS KIM-ME-NI-OLI WASH NEAR LAKE VALLEY, NM)
(LOCAL IDENTIFIER -22N.13W.25.322)

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ANTIMONY, TOTAL (UG/L AS SB) (01097)	ANTIMONY, DISSOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE) (01012)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)
AUG 18...	1630	9000	80	1	0	7	6	200	0	10	0

DATE	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)
AUG 18...	370	0	0	10	0	3	2	13	6	8200	390

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI) (01132)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)
AUG 18...	6	1	110	100	150	10	.1	.1	17	17	6

DATE	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR) (01082)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
AUG 18...	4	1	1	0	0	680	670	6.0	100	10

DATE	TIME	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)
AUG 18...	1630	220	9	1	2	<1	7

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	MOLYBDENUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01063)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G) (01148)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
AUG 18...	2900	10	250	.01	<1	0	15

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
AUG 18...	1630	<77	11	<41	11	<39	11	.08	2.3

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SAN JUAN BASIN - Continued

KIM-ME-NI-OLI WASH 0.7 MILE SOUTHWEST OF LA VIDA MISSION, NM (LAT 36 06 41 LONG 108 10 38 10)
(FORMERLY PUBLISHED AS KIM-ME-NI-OLI WASH NEAR LAKE VALLEY, NM)
(LOCAL IDENTIFIER -22N.13W.25.322)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)
AUG 18...	1620	.21	27.0	291	100	47	63	82

DATE	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
AUG 18...	86	86	88	90	96	97	100

ESCAVADO WASH AT HIWAY 56 BRIDGE NEAR CHACO CANYON TRADING POST, NM (LAT 36 06 14 LONG 107 57 20 10)
(LOCAL IDENTIFIER - 22N.11W.25.433)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SAMPLE SOURCE (72005)
JUL 13...	2300	E400	5000	7.2	290	238	660	10	40.00

DATE	TIME	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SAMPLE SOURCE (72005)
JUL 13...	2300	280000	660	9100	10	40.00

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
JUL 13...	2300	E400	61800	69	40.00

CHACO RIVER AT HIWAY 371 BRIDGE NEAR LAKE VALLEY, NM (LAT 36 06 50 LONG 108 11 28 10)
(LOCAL IDENTIFIER - 22N.13W.26.2314)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3) (95902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
APR 22...	1630	E10	3250	8.9	92	0	.00	27	6.0

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
APR 22...	730	33	6.4	510	28	465	460	1000	160

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SAN JUAN BASIN - Concluded

CHACO RIVER AT HIWAY 371 BRIDGE NEAR LAKE VALLEY, NM (LAT 36 06 50 LONG 108 11 28 10)
(LOCAL IDENTIFIER - 22N.13W.26.2314)

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
APR 22...	2.5	3.3	2210	.37	.040	310	550	10

DATE	TIME	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	SELENIUM, TOTAL (UG/L AS SE) (01147)
APR 22...	1630	310	550	10	1

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
APR 22...	1630	<51	15	<27	14	<26	13	.14	3.9

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
APR 22...	1630	E10	411	53

LITTLE COLORADO BASIN

POND 0.5 MILE EAST OF ARIZONA BORDER AND 14 MILES WEST OF ZUNI SALT LAKE, NM (LAT 34 25 40 LONG 109 01 12 01)
(LOCAL IDENTIFIER - 02N.21W.03.244)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS NONCARBONATE (MG/L AS CACO3) (95902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
MAR 13...	0945	3000	7.9	9.0	1100	470	270	91	380	5.1	19

DATE	ALKALINITY LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
MAR 13...	580	770	380	2.2	14	2230	2280	.04	530	40	20

DATE	TIME	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, DISSOLVED (UG/L AS CU) (01040)
MAR 13...	0945	3	100	530	0	0	7

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

LITTLE COLORADO BASIN

POND 0.5 MILE EAST OF ARIZONA BORDER AND 14 MILES WEST OF ZUNI SALT LAKE, NM (LAT 34 25 40 LONG 109 01 12 01)
(LOCAL IDENTIFIER - 02N.21W.03.244)

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
MAR 13...	40	1	20	.0	0	0	20

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
MAR 13...	0945	92	.6	41	.9	38	.9	6.0

GILA RIVER BASIN

MANGAS CREEK 0.8 MILE SOUTHEAST OF SADDLE ROCK CANYON NEAR MANGAS SPRINGS, NM (LAT 32 47 03 LONG 108 28 49 10)
(LOCAL IDENTIFIER - 17S.16W.34.243)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
OCT 15...	0955	1550	5.4	13.0	650	630	260	.3	56	1.0	57

DATE	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 15...	22	720	62000	2.8	2.8	1170	4	<10	5.3	.3

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)
OCT 15...	0955	0	0	200	40	4	0	<1	0	10	140

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT 15...	79	<10	0	3	.5	10	9	0	0	20	3

RADIOCHEMICAL ANALYSES OF ATMOSPHERIC PRECIPITATION

DATA NOT PREVIOUSLY PUBLISHED

1206 FIELD DRIVE NE, ALBUQUERQUE, NM (LAT 35 05 35 LONG 106 32 40 00)

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TRITIUM IN WATER MOLE-CULES (TU) (07012)	TRITIUM WATER MOLE-CULES COUNT ERROR (TU) (07013)
OCT 01-DEC 31	41.9	1.9
JAN 01-MAR 31	60.3	2.6
APR 01-JUN 30	77.1	2.8
JUL 01-SEP 31	40.1	1.5

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	(TU) (07012)	(TU) (07013)
OCT 01-DEC 31	22.7	1.1
JAN 01-MAR 31	27.4	1.0
JUL 01-SEP 31	25.5	1.2

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	(TU) (07012)	(TU) (07013)
OCT 01-DEC 31	17.1	.9
JAN 01-MAR 31	26.3	1.3
APR 01-JUN 30	53.6	1.9
JUL 01-SEP 31	13.4	.8

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	(TU) (07012)	(TU) (07013)
OCT 01-DEC 31	26.5	1.3
JAN 01-MAR 31	43.2	1.7
APR 01-JUN 30	48.2	1.8
JUL 01-SEP 31	38.1	1.5

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	(TU) (07012)	(TU) (07013)
OCT 01-DEC 31	11.7	.7

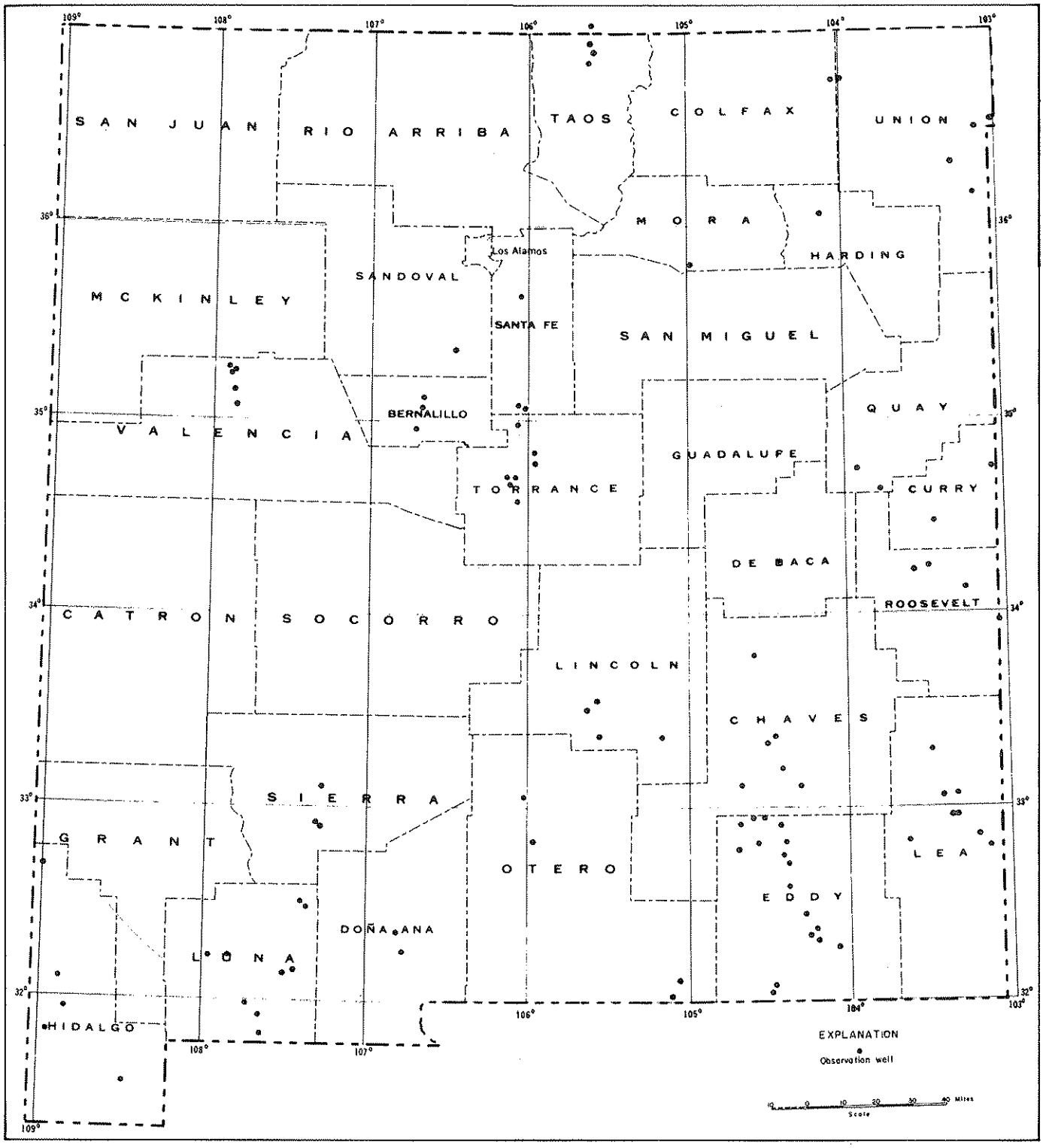


Figure 8.--Map of New Mexico showing location of observation wells.

BERNALILLO COUNTY
Albuquerque Area

345730106431001. Local number, 9N.2E.34.322.
LOCATION.--Lat 34°57'30", long 106°43'10", Hydrologic Unit 13020203.
Owner: Denison.
AQUIFER.--Santa Fe Group of middle (?) Miocene to Pleistocene (?) Age.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.30 m), depth unknown, cased to 12 ft (3.7 m).
DATUM.--Altitude of land-surface datum is 4,910 ft (1,497 m). Measuring point: Top of casing, 1.38 ft (0.42 m) above land-surface datum.
PERIOD OF RECORD.--July 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.22 ft (3.42 m) below land-surface datum, Aug. 10, 1973; lowest, 16.30 ft (4.97 m) below land-surface datum, Jan. 12, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	DATE	WATER LEVEL	
Feb 22	Mar. 12	13.~~42~~	5.1
Sept 9	~~July 16~~	12.~~70~~	6.7

350655106395001. Local number, 10N.2E.12.223.
LOCATION.--Lat 36°06'55", long 106°39'50", Hydrologic Unit 13020203.
Owner: City of Albuquerque.
AQUIFER.--Alluvium and Santa Fe Group.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 950 ft (290 m).
DATUM.--Altitude of land-surface datum is 4,962 ft (1,512 m). Measuring point: Top north side of casing, 6.00 ft (1.83 m) above land-surface datum.
PERIOD OF RECORD.--Apr. 1953, Jan. 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.10 ft (3.69 m) below land-surface datum, Apr. 16, 1953, lowest measured, 34.74 ft (10.59 m) below land-surface datum, Aug. 31, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	DATE	WATER LEVEL	
Feb. 22	~~Mar. 11~~	~~27.80~~	30.25
Sept 9	~~July 16~~	~~29.53~~	31.56

350415106403001. Local number, 10N.2E.24.413.
LOCATION.--Lat 35°04'15", long 106°40'30", Hydrologic Unit 13020203.
Owner: City of Albuquerque.
AQUIFER.--Alluvium and Santa Fe Group.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth and casing information not available.
DATUM.--Altitude of land-surface datum is 4,945 ft (1,507 m). Measuring point: Top east side of casing, 5.50 ft (1.68 m) above land-surface datum.
PERIOD OF RECORD.--Nov. 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, ~~13.23 ft~~ 12.82 (4.01) (4.03 m) below land-surface datum, ~~July 16, 1981~~ Sept. 9 1982; lowest measured, 27.05 ft (8.24 m) below land-surface datum, Aug. 12, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	DATE	WATER LEVEL	
Feb. 22	~~Mar. 11~~	13.~~42~~	13.03
Sept. 9	~~July 16~~	~~13.23~~	12.82

CHAVES COUNTY
Roswell Basin

334645104344501. Local number, 7S.23E.23.244.
LOCATION.--Lat 33°46'45", long 104°34'45", Hydrologic Unit 13060005.
Owner: Jess Corn.
AQUIFER.--San Andres Limestone of Permian Age.
WELL CHARACTERISTICS.--Drilled irrigation artesian well, diameter 14 in (0.36 m), depth 426 ft (130 m).
DATUM.--Altitude of land-surface datum is 3,810 ft (1,161 m). Measuring point: Lower outer edge of mouth of discharge pipe, 3.71 ft (1.13 m) above land-surface datum.
PERIOD OF RECORD.--May 1951-Mar. 1960, Jan. 1962-Jan. 1966, Jan. 1968 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 239.83 ft (73.10 m) below land-surface datum, May 26, 1951; lowest, 290.80 ft (88.40 m) below land-surface datum, Aug. 21, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 to SEPTEMBER 1981

	DATE	WATER LEVEL	
Aug 30	Jan. ~~20~~ 18	~~284.36~~	286.76
	~~Sept. 8~~	~~285.22~~	pumping

CHAVES COUNTY
Roswell Basin

332615104303601. Local number, 10S.24E.21.212.
LOCATION.--Lat 33°26'15", long 104°30'36", Hydrologic Unit 13060008.
Owner: U.S. Geological Survey.
AQUIFER.--San Andres Limestone
WELL CHARACTERISTICS.--Drilled artesian observation well completed in San Andres Limestone, diameter 10 inch (.25 m), depth 324 ft (98.8 m).
DATUM.--Altitude of land-surface datum is 3,580.65 ft (1,091 m). Measuring point: Top of recorder shelf, 3.60 ft (1.10 m) above land-surface datum.
PERIOD OF RECORD.--June 1940 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.06 ft (1.85 m) below land-surface datum Jan. 19, 1946; lowest, 74.40 ft (22.68 m) below land-surface datum, July 30, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	63.61	61.06	59.04	57.36	56.18	56.38	61.10	61.99	65.04	--	64.55	63.27
10	63.16	60.74	58.87	57.25	55.99	56.70	62.00	60.89	65.75	--	63.91	61.82
15	62.63	60.45	58.55	56.99	55.94	57.22	62.64	60.60	65.96	--	63.82	61.76
20	62.27	60.10	58.29	56.78	56.00	58.19	62.94	60.85	65.64	--	62.81	61.23
25	61.81	59.79	57.93	56.59	56.10	59.19	63.66	61.65	--	65.12	62.45	60.89
eom	61.40	59.35	57.69	56.28	56.19	60.50	64.15	63.53	--	64.54	62.56	60.52

WTR YEAR 1981 MAX ~~55.91~~ Feb. 17, 1981 MIN ~~67.18~~ June 22, 1981
53.53 Feb 14, 1982 70.41 Sept. 21, 1982

331930104261001. Local number, 11S.25E.29.34333.
LOCATION.--Lat 33°19'30", long 104°26'10", Hydrologic Unit 13060007.
Owner: Valle Ranch.
AQUIFER.--Valley Fill
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 160 ft (48.8 m), cased to 160 ft (48.8 m).
DATUM.--Altitude of land-surface datum is 3,535 ft (1,077 m). Measuring point: Edge of pump base, southeast corner, at land-surface datum.
PERIOD OF RECORD.--Aug. 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.20 ft (4.94 m) below land-surface datum, Jan. 13, 1975; lowest measured, 21.72 ft (6.62 m) below land-surface datum, Aug. 26, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Jan. ~~22~~ 19	~~19.83~~ 18.93
Aug 30 ~~Sept. 8~~	~~18.45~~ 21.56

332200104270001. Local number, 12S.25E.9.422.
LOCATION.--Lat 33°22'00", long 104°27'00", Hydrologic Unit 13060007.
Owner: Cumberland Townsite.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 10 in (0.25 m), reported depth 90 ft (27.4 m), cased to 90 ft (27.4 m).
DATUM.--Altitude of land-surface datum is 3,564 ft (1,086 m). Measuring point: Top of 3/4 in (1.9 cm) collar, 0.62 ft (0.19 m) above land-surface datum.
PERIOD OF RECORD.--May 1937 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.64 ft (11.78 m) below land-surface datum, Oct. 16, 1941; lowest measured, 83.06 ft (25.32 m) below land-surface datum, Aug. 21, 1973.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Jan. ~~22~~ 19	79.~~06~~ .10
Aug 30 ~~Sept. 8~~	~~79.29~~ 78.78

331205104245101. Local number, 12S.25E.23.344.
LOCATION.--Lat 33°12'05", long 104°24'51", Hydrologic Unit 13060007.
Owner: U.S. Geological Survey.
AQUIFER.--San Andres Limestone.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 9 to 7 in (0.23 to 0.18 m), depth 930 ft (283 m), 9 in (0.23 m) casing 0-304 ft (0-93 m), 7 in (0.18 m) casing 304-714 ft (93-218 m).
DATUM.--Altitude of land-surface datum is 3,539 ft (1,079 m). Measuring point: Top of recorder shelf, 2.90 ft (0.88 m) above land surface datum.
PERIOD OF RECORD.--Jan. 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.55 ft (7.48 m) below land-surface datum, Feb. 5, 1975; lowest, 199.68 ft (60.86 m) below land-surface datum, June 20, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	--	41.67	33.70	29.37	27.12	34.84	--	--	--	126.29	138.10	99.02
10	--	40.16	32.95	28.82	30.24	44.81	--	--	132.56	119.61	128.83	62.45
15	--	40.12	31.85	29.41	30.04	--	--	--	118.72	130.26	119.56	--
20	--	38.49	31.05	28.51	32.16	--	--	--	132.90	120.95	89.66	--
25	--	36.79	30.16	28.34	34.44	--	110.09	--	137.51	135.55	90.79	--
eom	42.94	35.00	29.97	27.50	34.24	--	112.67	--	136.03	131.97	92.01	--

WTR YEAR 1981 MAX ~~27.12 Feb. 5, 1981~~ MIN ~~154.71 July 8, 1981~~
25.12 Feb. 8, 1982 151.78 July 29, 1982

GROUND-WATER LEVELS

CHAVES COUNTY
Roswell Basin

A

331524104245101. Local number, 12S.25E.23.344A.
LOCATION.--Lat 33°15'24", long 104°24'51", Hydrologic Unit 13060007.
Owner: U.S. Geological Survey.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled observation well, diameter 7 in (0.18 m), total depth 231 ft (70.4 m), cased to total depth, perforated 105-231 ft (32.0-70.4 m).
DATUM.--Altitude of land-surface datum is 3,540 (1,079 m). Measuring point: Top of recorder shelf 2.90 ft (0.88 m) above land-surface datum.
PERIOD OF RECORD.--1942 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 102.79 ft (31.33 m) below land-surface datum, April 6 and 14, 1969; lowest 111.17 (33.88 m) below land-surface datum, Sept. 22, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	111.01	110.87	110.60	110.32	109.69	109.45	109.24	109.61	--	109.84	110.06	110.25
10	111.06	110.82	110.66	110.33	109.67	109.39	109.18	109.60	--	109.85	110.10	110.25
15	110.92	110.84	110.53	110.24	109.58	109.42	109.31	109.46	--	109.88	110.15	110.33
20	111.00	110.78	110.55	109.90	109.46	109.18	109.34	109.53	109.66	109.94	110.19	110.24
25	110.88	110.71	110.37	109.83	109.51	109.30	109.41	109.62	109.98	109.93	110.21	110.21
eom	110.89	110.64	110.43	109.67	109.52	109.31	109.51	109.59	109.80	110.02	110.23	110.23

WTR YEAR ~~1981~~ 1982 MAX ~~109.05 Apr. 6, 1981~~ 108.61 Apr. 6, 1982 MIN ~~111.06, Oct. 2, 6, 10, 1980~~ 110.26 Oct. 1, 1981

33100210427201. Local number, 13S.25E.27.211.
LOCATION.--Lat 33°10'02", long 104°27'20", Hydrologic Unit 13060007.
Owner: Hal Bogle.
AQUIFER.--San Andres Limestone.
WELL CHARACTERISTICS.--Drilled artesian observation well completed in San Andres Limestone, diameter 10 in. (.25 m), depth 880 ft (268 m).
DATUM.--Altitude of land-surface datum is 3,523.76 ft (1,074 m). Measuring point: Top of recorder shelf 3.59 ft (1.09 m) above land-surface datum.
PERIOD OF RECORD.--1940 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.94 ft (3.9 m) above land-surface datum, Jan. 13, 1942; lowest, 198.30 ft (60.4 m) below land-surface datum, July 18, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

B

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	50.14	--	25.80	--	--	30.85	--	108.84	159.42	137.00	163.50	112.70
10	52.20	37.01	--	--	--	--	146.00	85.20	153.73	141.19	149.60	65.85
15	51.75	36.31	23.60	--	--	--	123.39	91.66	142.61	157.59	133.58	61.62
20	--	--	--	--	--	--	111.40	116.30	152.60	144.98	100.70	65.58
25	--	--	--	--	--	119.42	125.70	122.82	164.02	158.96	103.81	76.50
eom	--	27.90	--	--	--	--	134.76	132.22	163.57	157.60	104.60	76.10

WTR YEAR ~~1981~~ 1982 MAX ~~23.05 Dec. 17, 1980~~ 17.63 Feb. 8, 1982 MIN ~~174.20 July 8, 9, 1981~~ 186.60 July 16, 1982 Revised 82

330700104402501. Local number, 14S.23E.8.144.
LOCATION.--Lat 33°07'00', long 104°40'25", Hydrologic Unit 13060009.
Owner: M. D. Kincaid.
AQUIFER.--San Andres Limestone of Permian Age.
WELL CHARACTERISTICS.--Drilled stock water-table well, diameter 8 in (0.20 m), depth 460 ft (140 m), casing information not available.
DATUM.--Altitude of land-surface datum is 3,845 ft (1,173 m). Measuring point: Top of casing, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--Apr. 1940 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 257.55 ft (78.50 m) below land-surface datum, Feb. 9, 1943; lowest measured, 327.34 ft (99.77 m) below land-surface datum, Aug. 28, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Jan. 22	315.06
Sept. 8	not measured

330640104174501. Local number, 14S.26E.12.433b.
LOCATION.--Lat 33°06'40", long 104°17'45", Hydrologic Unit 13060007.
Owner: C. B. Donaghay.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 13 in (0.33 m), depth 125 ft (38.1 m), cased 0-125 ft (0-38.1 m), perforated 50-115 ft (15.2-35.1 m).
DATUM.--Land-surface datum is 3,396.4 ft (1,035.2 m) above mean sea level. Measuring point: Top of casing, at land surface datum.
PERIOD OF RECORD.--Jan. 1940 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.50 ft (3.81 m) below land-surface datum, Jan. 22, 1942; lowest measured, 23.77 ft (7.25 m) below land-surface datum, Aug. 25, 1967.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Jan. ~~22~~ 19	~~20.20~~ 20.18
Aug 30 ~~Sept. 8~~	~~20.15~~ 21.65

C

CHAVES COUNTY
Roswell Basin

325845104295501. Local number, 15S.24E.25.433.
LOCATION.--Lat 32°58'45", long 104°29'55", Hydrologic Unit 13060007.
Owner: U.S. Geological Survey.
AQUIFER.--San Andres Limestone.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 5/8 in (0.22 m), depth 910 ft (277 m), casing 0-548 ft (0-167 m).
DATUM.--Altitude of land-surface datum is 3,528.92 ft (1,076 m). Measuring point: Top of recorder shelf 3.15 ft (0.96 m) above land-surface datum.
PERIOD OF RECORD.--1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, ~~1.51 ft~~ (0.46 m) below land-surface datum, ~~Feb.~~ 22 and ~~26, 1979~~; lowest 102.30 ft (31.2 m) below land-surface datum, July 17, 1971.

1.27 ft (0.39 m) Jan. 22

1982 WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	--	5.61	4.53	2.41	4.40	--	--	--	--	66.96	--	--
10	--	5.61	3.82	4.67	4.03	--	--	--	--	--	--	--
15	--	5.52	3.30	3.43	5.76	--	--	--	--	62.44	--	--
20	--	5.03	3.24	2.45	13.27	--	--	--	--	48.19	--	--
25	--	4.73	2.88	3.44	15.93	--	--	--	70.61	--	--	--
eom	6.71	4.41	2.61	6.27	16.10	--	--	--	81.74	--	--	--

WTR YEAR ~~1981~~ MAX ~~2.41~~ Jan. ~~5, 6, 19, 1981~~ MIN ~~85.91~~ July ~~8, 1981~~

1982 1.27 Jan 22, 1982 80.80 June 9, 1982

CIBOLA COUNTY
Grants-Bluewater Area

350400107510501. Local number, 10N.10W.26.331.
LOCATION.--Lat 35°04'00", long 107°51'05", Hydrologic Unit 13020207.
Owner: Monico Mirabal.
AQUIFER.--Glorieta Sandstone of Permian Age.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 216 ft (65.8 m).
DATUM.--Altitude of land-surface datum is 6,455 ft (1,967 m). Measuring point: Top of 1/2 in (1.3 cm) hole in pump base, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--Feb. 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.18 ft (6.76 m) below land-surface datum, Feb. 21, 1952; lowest measured, 34.69 ft (11.57 m) below land-surface datum, Jan. 17, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	DATE	WATER LEVEL	
Feb 23	~~Jan. 20~~	~~29.77~~	30.23
Sept 7	~~July 20~~	30.82	30.55

350925107523001. Local number, 11N.10W.27.241.
LOCATION.--Lat 35°09'25", long 107°52'30", Hydrologic Unit 13020207.
Owner: City of Grants.
AQUIFER.--San Andres Limestone of Permian Age.
WELL CHARACTERISTICS.--Drilled industrial water-table well, diameter 16 to 12 in (0.41-0.30 m), depth 158 ft (48.2 m), perforated to 58 ft (17.7 m).
DATUM.--Altitude of land-surface datum is 6,840 ft (1,975 m). Measuring point: Top of 1 in (2.5 cm) hole in pump base, 1.35 ft (0.41 m) above land-surface datum.
PERIOD OF RECORD.--Feb. 1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.86 ft (6.05 m) below land-surface datum, Feb. 20, 1953; lowest measured, 39.08 ft (11.91 m) below land-surface datum, Aug. 1, 1972.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	DATE	WATER LEVEL	
Feb 23	~~Jan. 22~~	~~30.95~~	48.81
Sept 7	~~July 20~~	~~32.64~~	28.59

351400107524201. Local number, 12N.10W.29.434.
LOCATION.--Lat 35°14'00", long 107°52'42", Hydrologic Unit 13020207.
Owner: A. R. Card.
AQUIFER.--San Andres Limestone of Permian Age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 18 in (0.46 m), reported depth 205 ft (62.5 m), cased 0-150 ft (0-45.7 m), perforated 93-130 ft (28.4-39.6 m).
DATUM.--Altitude of land-surface datum is 6,552 ft (1,997 m). Measuring point: Lower edge of hole in north side of casing; 2.20 ft (0.67 m) above land-surface datum.
PERIOD OF RECORD.--Oct. 1944, Feb. 1946 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 65.46 ft (19.95 m) below land-surface datum, Oct. 14, 1944; lowest measured, 107.61 ft (32.80 m) below land-surface datum, Aug. 6, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	DATE	WATER LEVEL	
Feb. 23	~~Jan. 22~~	90.~~97~~	.04
Sept. 7	~~July 20~~	~~90.87~~	91.58

CIBOLA COUNTY
Grants-Bluewater Area

351650107535001. Local number, 12N.11W.9.424.
LOCATION.--Lat 35°16"50", long 107°53'50", Hydrologic Unit 13020207.
Owner: Tom Yager.
AQUIFER.--San Andres Limestone and Yeso Formation of Permian Age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 16 in (0.41 m), reported depth 505 ft (154 m), 16 in (0.41 m) casing to 175 ft (53.3 m), 12 in (0.30 m) casing to 325 ft (99.1 m).
DATUM.--Altitude of land-surface datum is 6,642 ft (2,024 m). Measuring point: Top of casing, 3.05 ft (0.93 m) above land-surface datum.
PERIOD OF RECORD.--May 1946 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 93.75 ft (28.58 m) below land-surface datum, May 10, 1946; lowest measured, 139.05 ft (42.38 m) below land-surface datum, Aug. 1, 1957.

N

WATER LEVEL, IN FEET BELOW LAND-SURFACE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

New recorder well

DATE	WATER LEVEL
~~Jan. 23~~ Feb. 23	~~113.40~~ 110.65
~~July 20~~ Sep 7	~~110.08~~ 106.98

WTR YEAR 1982
max 106.47 Sept. 30 1982
min 110.76 Feb. 23 1982

351610107514501. Local number, 12N.11W.14.213.
LOCATION.--Lat 35°16'10", long 107°51'35", Hydrologic Unit 13020207.
Owner: Duane Berryhill.
AQUIFER.--Alluvium of Quaternary Age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in (0.10 m), depth 130 ft (39.6 m), surface casing 5 ft (1.5 m).
DATUM.--Land-surface datum is 6,605.4 ft (2,013.3 m). Measuring point: Top of 4 in (0.10 m) down spout, 3.70 ft (1.3 m) above land-surface datum (since Feb. 10, 1966).
PERIOD OF RECORD.--June 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, ~~84.60 ft (25.79 m)~~ 84.01 (25.61 m) below land-surface datum, ~~July 20, 1981~~ Sept. 7, 1982; lowest measured, 101.39 ft (30.90 m) below land-surface datum, June 10, 1954.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
~~Jan. 23~~ Feb 23	~~84.84~~ .20
~~July 20~~ Sept. 7	~~84.60~~ .01

COLFAX COUNTY
Capulin Basin

364500104031501. Local number, 29N.27E.16.222.
LOCATION.--Lat 36°45'00", long 104°03'15", Hydrologic Unit 11040001.
Owner: John King.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in (0.20 m), depth 120 ft (37 m), cased to 20 ft (37 m).
DATUM.--Land-surface datum is 6,821.5 ft (2,079.2 m) above mean sea Level. Measuring point: Top of casing, 1.50 ft (0.46 m) above land-surface datum.
PERIOD OF RECORD.--Feb. 1957-Feb. 1969, Feb. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.65 ft (1.42 m) below land-surface datum, Feb. 3 and Aug. 24, 1960, lowest measured, 9.37 ft (2.86 m) below land-surface datum, Aug. 13, 1975.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
~~Jan. 29~~ Feb 11	~~8.73~~ .53
Sept. ~~4~~ 01	~~8.42~~ 9.10

364430103595501. Local number, 29N.28E.18.341.
LOCATION.--Lat 36°44'30", long 103°59'55", Hydrologic Unit 11040001, 300 ft (91 m) north of U.S. Highway 64-87 at Capulin.
Owner: City of Raton.
AQUIFER.--Cinders.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 78 ft (23.8 m).
DATUM.--Land-surface datum is 6,821.2 ft (2,079.1 m) above mean sea level. Measuring point: Edge of 2 in (5 cm) hole in west side of steel plate, at land-surface datum.
PERIOD OF RECORD.--July 1951, Feb. 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.01 ft (8.54 m) below land-surface datum, Feb. 8, 1974; lowest measured, 36.23 ft (10.97 m) below land-surface datum, Aug. 24, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
~~Jan. 29~~ Feb. 11	~~35.42~~ 34.43
Sept. ~~9~~ 01	~~34.51~~ 35.87

GROUND-WATER LEVELS

COSTILLA COUNTY (in Colorado)
Sunshine Valley

375655105354001. Local number, 1N.74W.33.322.
LOCATION.--Lat 37°56'55", long 105°35'40", Hydrologic Unit 13020101.
Owner: Waller and Allen.
AQUIFER.--Santa Fe Group.
WELL CHARACTERISTICS.--Drilled unused water-table well diameter 15 in (0.38 m), depth 232 ft (70.7 m), casing information not available.
DATUM.--Altitude of land-surface datum is 7,495 ft (2,284 m). Measuring point: Edge of hole inside pumpcase, 2.00 ft (0.60 m) above land-surface datum (since 1971).
PERIOD OF RECORD.--Feb. 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 101.82 ft (31.03 m) below land-surface datum, Aug. 26, 1968; lowest measured, ~~135.86~~ 139.24 ft (~~41.41~~ 42.44 m) below land-surface datum, ~~Feb. 5, 1980~~ Sept 2, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Mar 18 ~~Feb. 18~~	~~135.66~~	136.48
Sept. 02	~~not measured~~	139.24

CURRY COUNTY
Clovis Area

342358103093601. Local number, 2N.36E.15.111.
LOCATION.--Lat 34°23'58", long 103°09'36", Hydrologic Unit 12050001.
Owner: Unknown.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter, depth and casing information not available.
DATUM.--Altitude of land-surface datum is 4,227 ft (1,288 m). Measuring point: Top of concrete base 1.00 ft (0.3048 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 266.89 ft (81.34 m) below land-surface datum, Jan. 4, 1974; lowest measured, 287.~~31~~ 45 ft (~~87.57~~ 87.61 m) below land-surface datum, Aug. ~~18, 1981~~ 31, 1982.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Jan. ~~12~~ 11	~~280.15B~~	281.20
Aug. ~~18~~ 31	287.~~31~~	.45

342815103270001. Local number, 3N.34E.23.433.
LOCATION.--Lat 34°28'15", long 103°27'00", Hydrologic Unit 12050001.
Owner: Monte Matlock.
AQUIFER.--Ogallala Formation of Pliocene Age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 16 in (0.41 m), depth 418 ft (127 m), cased to 418 ft (127 m), perforated 365-418 ft (111-127 m).
DATUM.--Altitude of land-surface datum is 4,432 ft (1,351 m). Measuring point: Top of casing level, with concrete base, 0.40 ft (0.12 m) above land-surface datum (since 1967).
PERIOD OF RECORD.--Apr. 1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 340.62 ft (103.82 m) below land-surface datum, Mar. 16, 1957; lowest measured, 360.64 ft (109.92 m) below land-surface datum, July 23, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Jan. ~~12~~ 11	~~352.04~~	351.77
Aug. ~~18~~ 31	~~352.54~~	353.23

343743103201501. Local number, 5N.34E.21.443.
LOCATION.--Lat 34°37'43", long 103°20'15", Hydrologic Unit 11120101.
Owner: Garrett Farms.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled abandoned irrigation well, diameter 16 in (0.41 m), depth 510 ft (155.44 m).
DATUM.--Altitude of land-surface datum is 4,632 ft (1,411.83 m). Measuring point: Top of 4 ft X 4 ft concrete pump base, 0.50 ft (0.15024 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 6, 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 440.14 ft (211.26 m) below land-surface datum, Jan. 6, 1971; lowest measured, 448.41 ft (136.67 m) below land-surface datum, Jan. 6, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Sept. 1 Jan. 9	~~446.30~~	445.82
~~Aug. 19~~	~~445.91~~	445.09

B-Pumped recently

CURRY COUNTY
Clovis Area

343615103123801. Local number, 5N.35E.35.313.
LOCATION.--Lat 34°36'15", long 103°12'38", Hydrologic Unit 11120101.
Owner: S. W. Pipkin.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled irrigation well, diameter 16 in (0.41 m), depth 527 ft (160.62 m).
DATUM.--Altitude of land-surface datum is 4,504 ft (1,372.81 m). Measuring point: Top of casing 0.50 ft (0.15024 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 376.40 ft. (114.72 m) Mar. 26, 1954; lowest measured, ~~438.30~~ ft (133.59 m) ~~Aug. 19, 1981~~.
439.08 (133.83m) Sept 1, 1982

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Jan. 9	~~436.54~~	438.40
Sept 1 ~~Aug. 19~~	~~438.30~~	439.08

4344500103052001. Local number, 6N.37E.8.333.
LOCATION.--Lat 34°45'00", long 103°05'20", Hydrologic Unit 11120101.
Owner: Paul Harrison.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 400 ft (121 m), casing information not available.
DATUM.--Altitude of land-surface datum is 4,430 ft (1,340 m). Measuring point: Southeast anchor bolt hole, 0.10 ft (0.03 m) above concrete base and 0.70 ft (0.21 m) above land surface datum.
PERIOD OF RECORD.--Jan. 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 289.30 ft (88.13 m) below land-surface datum, Jan. 3, 1975; lowest measured, 295.98 ft (89.97 m) below land-surface datum, Aug. 15, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Jan. ~~9~~ 8	~~291.55~~	290.39
Sept. 1 ~~Aug. 19~~	~~290.62~~	289.88

DONA ANA COUNTY Rincon and Mesilla Valleys

322210106483001. Local number, 22S.1E.26.411.
LOCATION.--Lat 32°22'10", long 106°48'30", Hydrologic Unit 13030102.
Owner: H. Wortheim.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), depth 107 ft (32.6 m), cased to 107 ft (32.6 m).
DATUM.--Altitude of land-surface datum is 3,920 ft (1,195 m). Measuring point: Top of east side of casing, 1.50 ft (0.46 m) above land-surface datum.
PERIOD OF RECORD.--Apr. 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.12 ft (3.07 m) below land-surface datum, Jan. 27, 1977; lowest measured, 25.57 ft (7.79 m) below land-surface datum, Apr. 25, 1957.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Mar. ~~10~~ 12	14.~~89~~	09
Sept. ~~29~~	~~12.23~~	not measured

321620106461501. Local number, 23S.2E.31.213.
LOCATION.--Lat 32°16'20", long 106°46'15", Hydrologic Unit 13030102.
Owner: New Mexico State University.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 14 in (0.36 m), reported depth 70 ft (21.3 m), cased to 70 ft (21.3 m).
DATUM.--Altitude of land-surface datum is 3,880 ft (1,183 m). Measuring point: Top of 5/8 in (0.63 cm) hole in pumpbase, 1.08 ft (0.33 m) above land-surface datum.
PERIOD OF RECORD.--Feb. 1948, Apr. 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.13 ft (4.31 m) below land-surface datum, Feb. 10, 1948; lowest measured, 29.12 ft (8.88 m) below land-surface datum, Jan. 7, 1958.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Mar. 12	~~not measured~~	24.55
Sept. ~~29~~	23.90	not measured

EDDY COUNTY Roswell Basin

325735104360701. Local number, 16S.24E.4.23123.
LOCATION.--lat 32°57'35", long 104°36'07", Hydrologic Unit 13060007.
Owner: Ellis Hunlic.
AQUIFER.--San Andres Limestone.
WELL CHARACTERISTICS.--Drilled irrigation artesian well, diameter not available, depth 610 ft (186 m).
DATUM.--Altitude of land-surface datum is 3,623 ft (1,104 m). Measuring point: southwest side of pump, 1.50 ft (0.46 m) above land-surface datum.
PERIOD OF RECORD.--Jan 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, ~~88.77~~ 85.96 (26.20 m) ft (27.06 m) below land-surface datum Jan. ~~29, 1981~~ 21, 1982; lowest measured, 100.54 ft (30.64 m) below land-surface datum, Aug. 27, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER ~~1980~~ 1981 TO SEPTEMBER 1981

DATE	WATER LEVEL
Jan. ~~29~~ 21	~~88.77~~ 85.96
~~Sept. 9~~ Aug 30	~~92.50~~ pumping

325638104274801. Local number, 16S.25E.11.113A.
LOCATION.--Lat. 32°56'38", long 104°27'48", Hydrologic Unit 13060007.
Owner: U.S. Geological Survey.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled observation well, diameter 7 in (0.18 m), depth 171 ft (52 m), casing 0-171 ft (0-52 m), perforated 94-170 ft (29-51.8 m).
DATUM.--Altitude of land-surface datum is 3,450 ft (1,052 m). Measuring point: Top of recorder shelf 3.00 ft (0.91 m) above land-surface datum.
PERIOD OF RECORD.--1964 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.90 ft (12.16 m) below land-surface datum, Feb. 18, 1966; lowest measured, 62.66 ft (19.11 m) below land-surface datum, Aug. 26, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER ~~1979~~ 1980 TO SEPTEMBER 1980
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	61.70	60.68	59.70	59.06	58.61	58.39	59.42	60.32	60.25	60.19	59.85	59.38
10	61.53	60.48	59.59	58.99	58.50	58.50	59.58	60.33	60.22	60.20	59.75	59.30
15	61.34	60.29	59.46	58.89	58.51	58.52	59.78	60.28	60.22	60.19	59.65	59.07
20	61.19	60.13	59.35	58.80	58.48	58.71	59.93	60.34	60.15	60.15	59.58	58.90
25	61.00	59.97	59.22	58.72	58.43	58.96	60.10	60.37	60.16	60.08	59.52	58.68
eom	60.85	59.82	59.13	58.63	58.43	59.19	60.23	60.33	60.17	59.94	59.44	58.52

WTR YEAR 1981 MAX ~~58.39 Mar. 5, 1981~~ 54.98 Feb 14, 1982 MIN ~~61.85 Oct. 1, 1980~~ 58.99 Sept 6, 1982

325445104253501. Local number, 16S.26E.19.211.
LOCATION.--Lat 32°54'45', long 104°25'35", Hydrologic Unit 13060007.
Owner: H. V. Parker.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.30 m), depth 107 ft (32.6 m) cased to 107 ft (32.6 m).
DATUM.--Land-surface datum is 3,397.9 ft (1,035.7 m) above mean sea level. Measuring point: Hole in top of pump, west side, 0.30 ft (0.09 m) above top of casing (since 1975).
PERIOD OF RECORD.--Jan. 1938 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.34 ft (2.85 m) below land-surface datum, Jan. 15, 1942; lowest measured, 110.68 ft (33.73 m) below land-surface datum, Sept. 16, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Jan. ~~29~~ 21	101.79 42
~~Sept. 9~~ Aug 30	108.85 pumping

324930104234501. Local number, 17S.26E.21.112.
LOCATION.--Lat 32°49'30", long 104°23'45", Hydrologic Unit 13060007.
Owner: Western Land Co., Inc.
AQUIFER.--Artesia Group.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.30 m), depth 242 ft (73.8 m), cased to 242 ft (73.8 m).
DATUM.--Altitude of land-surface datum is 3,373 ft (1,028 m). Measuring point: 3/4 in (1.9 cm) plug on discharge pipe, 2.00 ft (0.61 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1938-Jan. 1945, Jan. 1947-Aug. 1958, Jan. 1960-Jan. 1963, Jan 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.23 ft (13.18 m) below land-surface datum, Jan. 13, 1955; lowest measured, 109.80 ft (33.47 m) below land-surface datum, Aug. 12, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Jan. ~~20~~ 21	~~94.20~~ 92.20
Aug. ~~12~~ 30	~~109.80~~ 106.09

EDDY COUNTY
Roswell Basin

324624104244501. Local number, 18S.26E.6.442a.
LOCATION.--Lat 32°46'24", long 104°24'45", Hydrologic Unit 130600007.
Owner: Pecos Valley Artesian Conservancy District.
AQUIFER.--San Andres Limestone.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 9 in (0.23 m), depth 1,008 ft (307 m), cased to 726 ft (221 m).
DATUM.--Land-surface datum is 3402.10 ft (1036.96 m) above mean sea level. Measuring point: Top of recorder shelf, 3.40 ft (1.04 m) above land-surface datum.
REMARKS.--Depth to artesian aquifers 768 ft (234 m), 820 ft (250 m), 889 ft (271 m), and 999 ft (305 m).
PERIOD OF RECORD.--June 1961 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 71.79 ft (21.88 m) below land-surface datum, Jan. 26, 1962; lowest, 209.15 ft (63.75 m) below land-surface datum, July 31-Aug. 2, 1966.

E

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
DAILY HIGHEST WATER LEVEL, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	126.55	112.58	101.56	93.71	87.56	91.04	--	133.23	157.91	168.17	171.44	148.79
10	124.69	110.03	100.42	92.93	86.57	93.10	--	123.51	155.19	167.05	160.66	132.45
15	121.40	107.99	98.95	91.25	86.14	97.14	--	121.73	148.45	164.57	148.60	128.51
20	118.55	106.81	97.82	90.00	88.88	105.08	--	130.78	153.36	158.71	141.74	127.22
25	115.91	104.65	96.26	89.64	89.60	--	--	141.23	160.57	172.26	137.55	126.93
eom	113.88	103.01	95.08	88.33	89.60	--	142.73	150.54	166.81	171.84	143.34	123.36

WTR YEAR 1981 MAX ~~86.14 Feb. 15, 1981~~ 97.11 Dec 1, 1981 MIN ~~179.75 July 28, 1981~~ 174.20 Aug. 4, 1982

324620104255101. Local number, 18S.26E.06.422b.
LOCATION.--Lat 32°46'20", long 104°25'51", Hydrologic Unit 130600007.
Owner: U.S. Geological Survey.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled observation well, diameter 7 in (0.18 m), depth 246 ft (75 m), casing 0-246 ft (0-75 m).
DATUM.--Altitude of land-surface datum is 3,042 ft (927 m). Measuring point: Top of recorder shelf 2.70 ft (0.82 m) above land-surface datum.
PERIOD OF RECORD.--1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 106.83 ft (32.56 m) below land-surface datum, Jan. 7, 1974; lowest measured, 140.36 ft (42.78 m) below land-surface datum, Oct. 2, 1977.

G

WATER LEVEL IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	136.05	131.64	127.52	--	--	--	--	129.69	132.04	135.43	137.51	136.22
10	135.29	130.72	127.04	--	--	--	--	130.02	132.48	136.12	137.51	--
15	134.16	130.14	126.46	--	--	--	--	129.70	133.34	136.36	137.23	--
20	133.63	129.55	126.64	--	--	--	--	--	133.84	136.62	136.82	--
25	132.69	128.66	125.21	--	--	--	--	--	134.41	136.96	136.14	133.80
eom	132.50	128.08	--	--	--	--	129.15	131.09	134.72	137.31	135.82	133.24

WTR YEAR 1981 MAX ~~125.21 Dec. 24, 25, 1980~~ 117.16 Mar. 2, 1982 MIN ~~137.64 Aug. 8, 1981~~ 139.50 Sept. 20, 1982

324325104233001. Local number, 18S.26E.28.121a.
LOCATION.--Lat 32°43'25", long 104°23'30", Hydrologic Unit 13060011.
Owner: Town of Dayton.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 250 ft (76.2 m), cased to 182 ft (55.5 m), casing slotted 92-182 ft (28.0-55.5 m).
DATUM.--Altitude of land-surface datum is 3,403 ft (1,037 m). Measuring point: Top of casing, 0.06 ft (0.02 m) above land-surface datum.
PERIOD OF RECORD.--Aug. 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 59.79 ft (18.22 m) below land-surface datum, Feb. 5, 1952; lowest, ~~120.45 ft (36.7 m)~~ below land-surface datum, ~~Sept. 16, 1981.~~ 124.87 ft (38.06 m) Feb 25, 1982

F

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	119.91	119.98	--	119.99	120.08	120.17	120.22	120.21	120.25	120.26	120.32	120.37
10	119.93	120.00	--	120.12	120.02	120.14	120.15	120.14	120.20	120.26	120.32	120.32
15	119.85	120.06	--	120.03	120.05	120.16	120.19	120.02	120.26	120.26	120.32	120.40
20	119.97	--	120.09	120.02	120.10	120.00	120.15	120.12	120.21	120.31	120.35	120.29
25	119.88	--	119.96	120.03	120.10	120.14	120.16	120.19	120.30	120.29	120.34	120.37
eom	119.95	--	119.99	120.00	120.17	120.21	120.16	120.16	120.25	120.32	120.32	120.39

WTR YEAR 1981 MAX ~~119.85 Oct. 25, 1980~~ 119.66 May 24, 1982 MIN 120.45 Sept. 16, 1981 124.87 Feb 25, 1982

EDDY COUNTY
Carlsbad Area

322652104141901. Local number, 21S.26E.36.221.
LOCATION.--Lat 32°26'52", long 104°14'19", Hydrologic Unit 13060011.
Owner:
City of Carlsbad.
AQUIFER.--Capitan Limestone.
WELL CHARACTERISTICS.--Drilled municipal well, diameter 20 in (0.51-.41 m), depth 327 ft (100 m), casing 0-290 ft (0-88.4 m).
DATUM.--Altitude of land-surface datum is 3,121.84 ft (951.5 m). Measuring point: Top of recorder shelf 4.14 ft (1.26 m) above land-surface datum.
PERIOD OF RECORD.--April 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.23 ft (5.25 m) below land-surface datum, Jan. 9 and Feb. 15, 1975; lowest measured, 26.07 ft (7.95 m) below land-surface datum, Aug. 2, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	21.30	21.04	21.01	20.87	20.28	20.00	21.59	21.25	22.13	23.00	23.08	22.67
10	21.17	21.04	21.21	20.97	20.04	20.44	21.40	21.44	22.31	22.51	23.10	22.34
15	20.86	21.10	21.15	20.74	20.14	20.56	21.33	21.71	22.53	22.58	22.72	22.44
20	21.00	21.15	21.22	20.62	20.16	20.86	21.04	22.08	22.78	22.73	22.40	22.35
25	20.90	21.24	21.08	20.44	20.02	21.17	21.10	22.36	23.09	23.18	22.46	22.30
eom	20.96	21.05	21.00	20.28	20.05	21.51	21.16	22.28	23.05	22.93	22.60	22.37

WTR YEAR 1980 MAX ~~19.87 Mar. 3, 4, 1981~~ 21.99 Feb. 14, 1982 MIN ~~23.24 July 27, 1981~~ 24.23 Aug 29, 1982

322640104165801. Local number, 21S.27E.32.112.
LOCATION.--Lat 32°26'40", long 104°16'58", Hydrologic Unit 13060011.
Owner: L. E. Loman.
AQUIFER.--Capitan Limestone of Permian Age.
WELL CHARACTERISTICS.--Drilled domestic and irrigation artesian well, diameter 12 in (0.30 m), reported depth 305 ft (93 m).
DATUM.--Altitude of land-surface datum is 3,112 ft (949 m). Measuring point: Top of casing, 0.40 ft (0.12 m) above land-surface datum.
PERIOD OF RECORD.--Oct. 1947 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.64 ft (1.41 m) below land-surface datum, Jan. 17, 1950; lowest measured, 17.35 ft (5.29 m) below land-surface datum, Aug. 9, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Feb. 19 ~~Jan. 20~~	~~11.74~~ 13.98
Aug. ~~10~~ 19	~~14.35~~ Not measured

322710104073901. Local number, 21S.28E.30.141.
LOCATION.--Lat 32°27'10", long 104°07'39", Hydrologic Unit 13060011.
Owner: Forrest Miller.
AQUIFER.--Capitan Limestone.
WELL CHARACTERISTICS.--Drilled exploration well, diameter 8 5/8 - 5 1/2 in (0.22-.14 m), reported depth 1,060 ft (323 m), plugged back total depth 906 ft (276 m).
DATUM.--Altitude of land-surface datum is 3,181.71 ft (907 m). Measuring point: Top of casing 1.64 ft (0.50 m) above land-surface datum.
PERIOD OF RECORD.--1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 89.72 ft (27.3 m) below land-surface datum, Jan. 9 and Feb. 10, 1975; lowest measured, 98.68 ft (30.1 m) below land-surface datum, Aug. 3, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	93.78	93.47	93.38	93.19	92.66	92.35	93.98	93.58	94.59	--	95.57	95.18
10	93.70	93.44	93.65	93.38	92.49	92.76	93.81	93.84	--	--	95.53	94.79
15	93.35	93.52	93.53	93.09	92.51	92.85	93.78	94.00	--	--	95.14	94.91
20	93.47	93.51	93.55	92.97	92.34	93.04	93.40	94.39	--	95.28	94.89	94.82
25	93.33	93.65	93.39	92.86	92.49	93.47	93.55	94.75	--	95.61	94.88	94.68
eom	93.43	93.40	93.35	92.66	92.48	93.77	93.60	94.60	--	95.31	95.04	94.76

WTR YEAR 1981 MAX ~~92.24 Mar. 3, 1981~~ 90.10 Feb. 8, 1982 MIN ~~95.69 Aug. 7, 1981~~ 96.56 Aug 28, 1982

EDDY COUNTY
Carlsbad Area

322120104151501. Local number, 22S.26E.36.111a.
LOCATION.--Lat 32°21'20", long 104°15'15", Hydrologic Unit 13060011.
Owner: Carlsbad Airfield.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 12 in (0.30 m), depth 260 ft (79.3 m), cased to 260 ft (79.3 m).
DATUM.--Altitude of land-surface datum is 3,225 ft (983 m). Measuring point: Top of recorder platform, 2.70 ft (0.83 m) above land-surface datum.
PERIOD OF RECORD.--July 1942 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 131.50 ft (40.08 m) below land-surface datum, Oct. 14, 1942; lowest, 214.82 ft (65.47 m) below land-surface datum, Sept. 15, 1978.

5

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	187.09	--	--	--	--	--	--	175.34	178.11	179.85	181.10	--
10	185.23	--	--	--	--	--	--	174.70	178.05	180.12	180.74	--
15	183.62	--	--	--	172.35	--	--	174.49	177.41	179.76	--	--
20	--	--	--	--	--	--	--	175.02	177.70	179.84	--	--
25	--	--	--	--	--	--	--	175.78	178.41	180.51	--	176.34
eom	--	--	--	172.40	--	--	175.79	177.50	179.32	181.26	--	175.94

WTR YEAR 1981 MAX ~~172.35 Feb. 15, 1981~~ 163.02 Feb 14, 1982 MIN ~~191.21 Oct. 1, 1980~~ 184.11 Sept. 21, 1982

322231104131001. Local number, 22S.27E.22.421.
LOCATION.--Lat 32°22'31", long 104°31'10", Hydrologic Unit 13060011.
Owner: Enea Grandi.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), reported depth 150 ft (45.7 m).
DATUM.--Altitude of land-surface datum is 3,100 ft (945 m). Measuring point: Top of casing, 1.20 ft (0.37 m) above land-surface datum.
PERIOD OF RECORD.--Sept. 1947-Aug. 1968, Jan. 1970 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.43 ft (6.53 m) below land-surface datum, Sept. 15,1950; lowest measured, 81.10 ft (24.65 m) below land-surface datum, Aug. 8, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Feb. 19 ~~Jan. 20~~	~~49.97~~	50.65
Aug. 19 ~~Aug. 10~~	~~60.72~~	55.47

320257104295201. Local number, 26S.24E.9.441.
LOCATION.--Lat 32°02'57", long 104°29'52", Hydrologic Unit 13060011.
Owner: John Mayes.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.30 m), depth 100 ft (30.5 m), cased to 85 ft (25.9 m).
DATUM.--Land-surface datum is 3,749.4 ft (1,142.8 m) above mean sea level. Measuring point: Top of air-line flange support, 1.40 ft (0.43 m) above land-surface datum. 40.08 (12.22 m)
PERIOD OF RECORD.--Apr. 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, ~~41.54 ft (12.66~~ m) below land-surface datum, ~~Jan. 20, 1981~~ Jan 26, 1982; lowest measured, 54.98 ft (16.76 m) below land-surface datum, Sept. 8, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Jan. ~~20~~ 26	~~41.54~~	40.08
Aug. ~~11~~ 19	~~42.33~~	43.53

HARDING COUNTY

360340104085001. Local number, 21N.26E.3.4443.
LOCATION.--Lat 36°03'40", long 104°08'50", Hydrologic Unit 11080007.
Owner: Unknown.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 5 in (0.13 m), depth 120 ft (36.3 m), cased to 120 ft (36.3 m).
DATUM.--Altitude of land-surface datum is 5,870 ft (1,777 m). Measuring point: Top of 5 in (0.13 m) galvanized casing, 0.30 ft (0.09 m) above land-surface datum on east side.
PERIOD OF RECORD.--Jan. 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 82.92 ft (25.27 m) below land-surface datum, Jan. 28, 1976; lowest measured, 84.45 ft (25.74 m) below land-surface datum, Sept 3, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Feb. 02 ~~Jan. 26~~	~~83.68~~	83.60
Sept. ~~3~~ 01	~~84.45~~	83.53

HIDALGO COUNTY
Virden Valley

324053108594101. Local number, 19S.21W.3.414.
LOCATION--Lat 32°40'53", long 108°59'41", Hydrologic Unit 15040002.
Owner: Jones, Clouse, Jensen.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 20 in (0.51 m), depth 72 ft (22.0 m).
DATUM.--Altitude of land-surface datum is 3,750 ft (1,143 m). Measuring point: Hole inside pumpshell, 0.90 ft (0.27 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.27 ft (2.82 m) below land-surface datum, Jan. 12, 1979; lowest measured, 14.54 ft (4.43 m) below land-surface datum, Sept. 12, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Dec 11 ~~Jan. 15~~	~~10.67~~	10.44
Aug. ~~5~~ 4	~~12.43~~	13.38

Animas Valley

315645108493501. Local number, 27S.19W.20.343.
LOCATION.--Lat 31°56'45", long 108°49'35", Hydrologic Unit 15040003.
Owner: Felix Gauthier.
AQUIFER.--Bolson deposits.
WELL CHARACTERISTICS.--Drilled irrigation water-table table well, diameter 16 in (0.41 m), depth 358 ft (109 m), cased to 358 ft (109 m).
DATUM.--Altitude of land-surface datum is 4,420 ft (1,347 m). Measuring point: Top edge of 1 1/4 in (3.16 cm) pipe in concrete pump base, 1.25 ft (0.38 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 132.12 ft (40.27 m) below land-surface datum, Jan. 19, 1950; lowest measured, 198.50 ft (60.34 m) below land-surface datum, Aug. 1, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Dec. 28 ~~Jan. 5~~	~~not measured~~	191.40
Aug 4 ~~July 4~~	~~198.30~~	188.80

Playas Valley

313502108275001. Local number, 31S.16W.33.233.
LOCATION.--Lat 31°35'02", long 108°27'50", Hydrologic Unit 13030201.
Owner: U-Bar Ranch.
AQUIFER.--Bolson deposits.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 16 in (0.41 m), depth 654 ft (199 m), 16 in (0.41 m) casing.
DATUM.--Altitude of land-surface datum is 4,400 ft (1,341 m). Measuring point: Bottom edge of shelf, 4.05 ft (1.23 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.66 ft (13.61 m) below land-surface datum, Apr. 18-20, and 30, 1973; lowest, 54.95 ft (16.74 m) below land-surface datum, Sept. 4, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Mar 4 ~~Jan. 20~~	~~46.73~~	47.32
Aug. 7	~~45.68~~	not measured

GROUND-WATER LEVELS

LEA COUNTY
Tatum-Lovington-Hobbs Area

331740103285001. Local number, 12S.34E.11.421.
LOCATION.--Lat 33°17'40", long 103°28'50", Hydrologic Unit 12080006.
Owner: A. D. Jones.
AQUIFER.--Ogallala Formation of Pliocene Age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 15 in (0.38 m), depth 87 ft (26.5 m).
DATUM.--Altitude of land-surface datum is 4,150 ft (1,265 m). Measuring point: Top of concrete pump base, 0.80 ft (0.24 m) above land-surface datum.
PERIOD OF RECORD.--May 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.57 ft (9.01 m) below land-surface datum, May 24, 1949; lowest measured, 34.03 ft (10.34 m) below land-surface datum, Aug. 9, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Jan 6	~~33.30~~	32.81
Aug. ~~20~~ 31	~~33.34~~	32.48

330325103245501. Local number, 14S.35E.33.433.
LOCATION.--Lat 33°03'25", long 103°24'55", Hydrologic Unit 12.
Owner: W. A. Anderson.
AQUIFER.--Ogallala Formation of Pliocene Age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in (0.15 m), depth 62 ft (18.9 m), not cased.
DATUM.--Land-surface datum is 4,013.61 ft (1,223.35 m) above mean sea level. Measuring point: Top of concrete collar on well, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--Nov. 1929 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.65 ft (12.09 m) below land-surface datum, May 21, July 25, 1951 and Jan. 9, May 24, 1952; lowest measured, 46.84 ft (14.28 m) below land-surface datum, Aug. 13, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Jan. ~~7~~ 5	45.~~72~~	.85
Aug. ~~25~~ 31	~~45.47~~	44.56

330400103193401. Local number, 14S.36E.32.121.
LOCATION.--Lat 33°04'00", long 103°19'34", Hydrologic Unit 12080003.
Owner: E. T. Howell.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth and casing information not available.
DATUM.--Altitude of land-surface datum is 3,990 ft (1,216 m). Measuring point: Top of concrete pump base, 0.50 ft (0.15 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1949-Jan. 1950, Jan. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.38 ft (15.9 m) below land-surface datum, Jan. 19, 1949, lowest measured, 70.07 ft (21.36 m) below land-surface datum, Jan. 14, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Jan. ~~7~~ 5	66.~~67~~	.70
Aug. ~~25~~ 31	66.~~79~~	.78

K

325703103213201. Local number, 16S.36E.4.322.
LOCATION.--Lat 32°57'03", long 103°21'32", Hydrologic Unit 12080003.
Owner: City of Lovington.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 13 in (0.33 m), depth 212 ft (64.6 m), perforated 80-208 ft (24.4-63.4 m).
DATUM.--Altitude of land-surface datum is 3,926 ft (1,197 m). Measuring point: Top of shelf, 4.00 ft (1.22 m) above land-surface datum.
PERIOD OF RECORD.--Aug. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, ~~65.00 ft~~ (19.81 m) below land-surface datum, ~~Dec. 14, 16, and 24, 1973~~ 64.28 May 26, 1982; lowest measured, 67.11 ft (20.46 m) below land-surface datum, Aug. 24, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	65.80	—	—	65.57	—	65.32	—	—	—	65.54	65.53	—
10	65.80	—	—	—	65.56	—	—	—	—	65.54	65.47	—
15	65.80	—	65.62	—	65.43	—	—	—	—	65.56	65.47	—
20	65.80	—	65.61	—	65.41	—	—	—	—	65.56	65.43	—
25	65.78	—	65.61	—	65.39	65.32	—	—	65.54	65.56	65.42	65.20
eom	—	—	65.60	—	65.39	65.30	—	—	65.54	65.53	65.38	65.20

WTR YEAR 1981 MAX ~~65.20 Sept. 25, 1981~~ MIN ~~65.80 Oct. 5, 1980~~
64.28 May 26, 1982 65.20 Oct. 1, 1981

LEA COUNTY
Tatum-Lovington-Hobbs Area

325658103200001. Local number, 16S.37E.11.111.
LOCATION.--Lat 32°56'58", long 103°20'00", Hydrologic Unit 12080003.
Owner: H. J. Taylor.
AQUIFER.--Ogallala Formation of Pliocene Age.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), reported depth 118 ft (36.0 m).
DATUM.--Altitude of land-surface datum is 3,900 ft (1,189 m). Measuring point: Top of 1 in (2.54 cm) hole in southwest side of pump, 1.34 ft (0.41 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.93 ft (9.73 m) below land-surface datum, Jan. 23, 1949; lowest measured, 78.64 ft (23.96 m) below land-surface datum, Jan. 3, 1979.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Jan. ~~7~~ 6	74.~~32~~ .90
Aug 31 ~~July 22~~	~~not measured~~ 72.21

325132103112501. Local number, 17S.38E.7.111a.
LOCATION.--Lat 32°51'32", long 103°11'25", Hydrologic Unit 12080003.
Owner: L. R. Sebings.
AQUIFER.--Ogallala Formation of Pliocene Age.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), reported depth 125 ft (38.1 m).
DATUM.--Altitude of land-surface datum is 3,740 ft (1,140 m). Measuring point: Edge of small pipe projecting from west side of pump, 0.96 ft (0.29 m) above concrete pump base, and 1.91 ft (0.58 m) above land-surface datum (since 1971).
PERIOD OF RECORD.--July 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.59 ft (10.85 m) below land-surface datum, Mar. 21, 1952; lowest measured, 74.15 ft (22.60 m) below land-surface datum, July 22, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Jan. ~~6~~ 5	~~70.44~~ 69.03
Aug. 31	~~not measured~~ 72.85

324745103082001. Local number, 17S.38E.34.113.
LOCATION.--Lat 32°47'45", long 103°08'20", Hydrologic Unit 12080003.
Owner: W. E. Busby.
AQUIFER.--Ogallala Formation of Pliocene Age.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.30 m), depth 125 ft (38.1 m), cased to 90 ft (27.4 m).
DATUM.--Altitude of land-surface datum is 3,660 ft (1,116 m). Measuring point: Top of 1/2 in (1.3 cm) hole in pump base, 0.54 ft (0.16 m) above land-surface datum.
PERIOD OF RECORD.--Nov. 1943 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.78 ft (7.55 m) below land-surface datum, Jan. 15, 1944; lowest measured, ~~57.50 ft~~ (17.53 m) below land-surface datum, ~~Aug. 25, 1981~~.
57.67 ft (17.58 m) Aug. 31, 1982

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Jan. ~~6~~ 5	~~57.43~~ 56.44
Aug. ~~25~~ 31	~~57.50~~ 57.67

LINCOLN COUNTY
Hondo Valley

333015105382201. Local number, 9S.13E.25.113.
LOCATION.--Lat 33°30'15", long 105°38'22", Hydrologic Unit 13060008, 0.4 mi (0.6 km) southwest of intersection of Magado Creek and State Highway 48.
Owner: M W. Coll.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation and domestic water-table well, diameter 8 in (0.20 m), depth 90 ft (27.4 m), cased to 40 ft (12.1 m).
DATUM.--Altitude of land-surface datum is 6,750 ft (2,057 m). Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--Dec. 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.04 ft (5.05 m) below land-surface datum, Nov. 25, 1958; lowest measured, 44.36 ft (13.52 m) below land-surface datum, Aug. 13, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Mar 3 ~~Jan. 28~~	~~35.11~~ 29.40
Aug. 30	~~not measured~~

LINCOLN COUNTY
Hondo Valley

333242105340701. Local number, 9S.14E.10.132.
LOCATION.--Lat 33°32'42", long 105°34'07", Hydrologic Unit 13060008, east end of Village on south side of Highway U.S. 380. Owner: Village of Capitan.
AQUIFER.--Mancos Shale of Late Cretaceous Age.
WELL CHARACTERISTICS.--Drilled public supply water-table well, diameter 8 in (0.20 m), depth 324 ft (98.8 m), cased to 271 ft (82.6 m).
DATUM.--Altitude of land-surface datum is 6,340 ft (1,932 m). Measuring point: Top of breather hole on west side of pump base, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--June 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 37.34 ft (11.38 m) below land-surface datum, Aug. 30, 1979; lowest measured, 69.77 ft (21.27 m) below land-surface datum, Nov. 28, 1956.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Mar 3 ~~Jan. 28~~	38.~~90~~ .56
Aug. ~~13~~ 30	~~43.60~~ 39.22

332145105333001. Local number, 11S.14E.15.431.
LOCATION.--Lat 33°21'45", long 105°33'30", Hydrologic Unit 13060008, 0.1 mi (0.16 km) west of Valley View Motel. Owner: E. H. Fuchs.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in (0.20 m), depth 90 ft (27.4 m), casing information not available.
DATUM.--Altitude of land-surface datum is 6,200 ft (1,890 m). Measuring point: Top of east edge of 8 in (0.20 m) casing, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--July 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.16 ft (17.42 m) below land-surface datum, Mar. 26, 1958; lowest measured, 63.75 ft (19.43 m) below land-surface datum, Aug. 10, 1970.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Jan. 28	59.30
Aug. 13	58.98

332157105094101. Local number, 11S.18E.16.444.
LOCATION.--Lat 33°21'57", long 105°09'41", Hydrologic Unit 1306008, 0.4 mi (0.6 km) south of Picacho Bridge on east of Casey Canyon Road. Owner: Lincoln County Livestock Co.
AQUIFER.--Yeso Formation of Permian Age.
WELL CHARACTERISTICS.--Drilled domestic and stock water-table well, diameter 12 in (0.30 m), depth 125 ft (38.1 m), cased to 110 ft (33.5 m).
DATUM.--Altitude of land-surface datum is 5,010 ft (1,526 m). Measuring point: Top of casing, 0.5 ft (0.15 m) above land-surface datum.
PERIOD OF RECORD.--Oct. 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 45.02 ft (13.68 m) below land-surface datum, Jan. 25, 1977; lowest measured, 60.18 ft (18.34 m) below land-surface datum, Jan. 15, 1959.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Mar 3 ~~Jan. 28~~	~~54.19~~ 45.12
Aug. ~~20~~ 30	~~not measured~~ 51.25

LUNA COUNTY ~~Mimbres Valley~~
Nutt-Hockett

322930107221001. Local number, 21S.5W.8.444.
LOCATION.--Lat 32°29'30", long 107°22'10", Hydrologic Unit 13030202. Owner: Leonard Farms (formerly Jack Carter).
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 435 ft (133 m), cased to 435 ft (133 m).
DATUM.--Altitude of land-surface datum is 4,530 ft (1,381 m). Measuring point: Hole in NE side of pump shell, 1.60 ft (0.49 m) above land-surface datum.
PERIOD OF RECORD.--Nov. 1961 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 102.06 ft (31.11 m) below land-surface datum, Jan. 17, 1962; lowest measured, 169.44 ft (51.64 m) below land-surface datum, Aug. 3, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Feb. 16 ~~Jan. 16~~	~~166.50~~ 167.94
Aug. ~~3~~	~~169.44~~ not measured

LUNA COUNTY
Mimbres Valley

321352107493901. Local number, 24S.10W.12.431.
LOCATION.--Lat 32°13'52", long 107°49'39", Hydrologic Unit 13030202.
Owner: Steve Hrna.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Dug and drilled unused water-table well, diameter 36 in (0.91 m), reported depth 132 ft (40.2 m).
DATUM.--Altitude of land-surface datum is 4,330 ft (1,319 m). Measuring point: Top of recorder shelter shelf, 1.36 ft (0.42 m) above land-surface datum.
PERIOD OF RECORD.--Apr. 1939 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 71.61 ft (23.66 m) below land-surface datum, May 6-13, 1940; lowest, 113.30 ft (34.53 m) below land-surface datum, Aug. 12 and 20, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	104.89	103.11	--	102.70	--	104.14	104.88	106.03	105.98	106.17	104.18	--
10	104.72	102.99	--	102.94	--	104.37	104.96	106.14	105.97	106.13	103.38	--
15	104.34	102.95	--	--	--	104.52	105.37	106.11	106.10	105.95	102.38	--
20	104.42	102.86	102.90	--	--	103.96	105.44	106.30	106.14	105.74	101.32	--
25	104.02	--	102.80	--	103.88	104.23	105.65	106.42	106.24	105.32	100.13	--
eom	103.40	--	102.86	--	104.03	104.50	105.88	105.84	106.20	104.73	--	--

WTR YEAR 1981 MAX ~~99.81 Aug. 27, 1981~~ 97.52 Mar 16, 1982 MIN 106.42 May 25, 1981 102.48 June 22, 1982

321415107565501. Local number 24S.11W.14.122.
LOCATION.--Lat 32°14'15", long 107°56'55", Hydrologic Unit 13030202.
Owner: Charles Waldrop.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.30 m), reported depth 210 ft (64.0 m), cased to 198 ft (60.4 m).
DATUM.--Altitude of land-surface datum is 4,405 ft (1,343 m). Measuring point: Top of 1 in (2.54 cm) hole in pump base, 0.80 ft (0.24 m) above land-surface datum.
PERIOD OF RECORD.--July 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 107.66 ft (32.82 m) below land-surface datum, Jan. 23, 1952; lowest measured, 228.00 ft (69.31 m) below land-surface datum, May 11, 1956.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Feb 19 ~~Jan. 7~~	~~184.26~~	170.10
Aug. 3	~~188.83~~	Not measured

321015107260501. Local number, 25S.6W.2.111.
LOCATION.--Lat 32°10'15", long 107°26'05", Hydrologic Unit 13030202.
Owner: C. W. Johnson, Jr.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation artesian well, diameter 16 in (0.41 m), depth 235 ft (71.6 m), perforated 180-235 ft (54.9-71.6 m), gravel packed.
DATUM.--Altitude of land-surface datum is 4,220 ft (1,282 m). Measuring point: Top of casing, 1.30 ft (0.40 m) above land-surface datum.
PERIOD OF RECORD.--May 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.45 ft (0.14 m) below land-surface datum, Mar. 14, 1953; lowest measured, 117.66 ft (35.86 m) below land-surface datum, Aug. 6, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Jan. 19 ~~15~~	~~35.30~~	53.06
Aug. 6	~~107.69~~	55.37

320915104294501. Local number, 25S.6W.7.211.
LOCATION.--Lat 32°09'15", long 104°29'45", Hydrologic Unit 13030202.
Owner: H. C. Telles.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 230 ft (70.1 m), cased to 230 ft (70.1 m).
DATUM.--Land-surface datum is 4,084.22 ft (1,244.87 m) above mean sea level. Measuring point: Hole in pump base, 1.20 ft (0.37 m) above land-surface datum (since Jan. 15, 1966).
PERIOD OF RECORD.--Jan. 1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 65.34 ft (19.92 m) below land-surface datum, Mar. 14, 1953; lowest measured, 122.16 ft (37.23 m) below land-surface datum, Aug. 13, 1970.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Jan. 15	~~90.73~~	91.34
Aug. 6 ~~3~~	100.13	91.40

LUNA COUNTY
Mimbres Valley

315525107374501. Local number, 27S.8W.35.122.
LOCATION.--Lat 31°55'25", long 107°37'45", Hydrologic Unit 13030202.
Owner: M. M. Gibson.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 12 in (0.30 m) to 8 in (0.20 m), depth 550 ft (168 m), cased to 550 ft (168 m), perforated 155-550 ft (47-168 m).
DATUM.--Altitude of land-surface datum is 4,070 ft (1,241 m). Measuring point: Top of casing, 0.20 ft (0.06 m) above land-surface datum.
PERIOD OF RECORD.--July 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.84 ft (6.35 m) below land-surface datum, Mar. 16, 1953; lowest measured, 119.34 ft (36.37 m) below land-surface datum, Aug. 3, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Jan. ~~6~~ 12	~~90.75~~	91.05
Aug. ~~3~~ 5	~~119.34~~	114.80

315905107425001. Local number, 27S.9W.1.431.
LOCATION.--Lat 31°59'05", long 107°42'50", Hydrologic Unit 13030202.
Owner: I. G. Burns.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 62 ft (18.9 m), cased to 62 ft (18.9 m).
DATUM.--Altitude of land-surface datum is 4,135 ft (1,260 m). Measuring point: Top edge of rectangular hole in pump base, 0.65 ft (0.20 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.61 ft (9.33 m) below land-surface datum, Jan. 19, 1954; lowest measured, 47.26 ft (14.36 m) below land-surface datum, Aug. 11, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Feb 23 ~~Jan. 6~~	~~37.08~~	38.89
Aug. 5	~~not measured~~	38.36

314938107371401. Local number, 28S.8W.36.411.
LOCATION.--Lat 31°49'38", long 107°37'14", Hydrologic Unit 13030202.
Owner: M. R. Hemley.
AQUIFER.--Bolson deposits.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 250 ft (76.2 m), cased to 250 ft (76.2 m).
DATUM.--Altitude of land-surface datum is 4,008 ft (1,222 m). Measuring point: Top of casing, 1.85 ft (0.56 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1961 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.04 ft (2.76 m) below land-surface datum, Aug. 3, 1981; lowest measured, 27.85 ft (8.49 m) below land-surface datum, Jan. 14, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Jan. ~~5~~ 7	~~12.33~~	9.78
Aug. ~~3~~ 5	9.04	9.14

MORA COUNTY

354840104590301. Local number, 18N.18E.1.333.
LOCATION.--Lat 35°48'40", long 104°59'03", Hydrologic Unit 11080004.
Owner: Sellman Bros.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 14 in (0.36 m), depth 100 ft (30.5 m).
DATUM.--Altitude of land-surface datum is 6,420 ft (1,944 m). Measuring point: Hole in southeast corner of pump base, 2.00 ft (0.64 m) above land-surface datum.
PERIOD OF RECORD.--1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.23 ft (0.98 m) below land-surface datum, July 25, 1979; lowest measured, 5.97 ft (1.82 m) below land-surface datum, Aug. 23, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Feb 11 ~~Jan. 26~~	~~5.62~~	5.25
Sept. 9	4.45	4.20

OTERO COUNTY
Tularosa-Alamogordo Area

330324106011201. Local number, 14S.10E.31.144.
LOCATION.--Lat 33°03'24", long 106°01'12", Hydrologic Unit 13050003.
Owner: Luther Watson.
AQUIFER.--Bolson deposits.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, depth 230 ft (70.1 m) diameter 17 in. (0.43 m), casing 0-130 ft (0-39 m).
DATUM.--Altitude of land-surface datum is 4,450 ft (1,356 m). Measuring point: Top edge of 1 in (2.54 cm) hole in pump base, 0.70 ft (0.21 m) above land-surface datum.
PERIOD OF RECORD.--Apr. 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 73.75 ft (22.48 m) below land-surface datum, Apr. 8, 1952; lowest measured, 134.21 ft (40.79 m) below land-surface datum, Aug. 3, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Feb. 8 ~~Jan. 26~~	~~107.13~~	113.91
July	pumping	

Crow Flats Basin
(Salt Basin)

320650105034801. Local number, 26S.18E.21.331.
LOCATION.--Lat 32°06'50", long 105°03'48", Hydrologic Unit 13050004.
Owner: Frank Gentry.
AQUIFER.--Bolson deposits.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), depth 544 ft (165 m).
DATUM.--Altitude of land-surface datum is 4,000 ft (1,216 m). Measuring point: Top of casing, 2.50 ft (0.75 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.08 ft (15.57 m) below land-surface datum, Jan. 8, 1973, lowest measured, 82.94 ft (25.21 m) below land-surface datum, Aug. 17, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Jan. 26	~~not measured~~	61.74
Aug. ~~11~~ 18	~~79.45~~	74.96

QUAY COUNTY
House Area

344350103553001. Local number, 6N.28E.24.233.
LOCATION.--Lat 34°43'50", long 103°55'30", Hydrologic Unit 13060004.
Owner: G. B. Irwin.
AQUIFER.--Ogallala Formation of Pliocene Age.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), reported depth 131 ft (39.9 m), cased to 131 ft (39.9 m).
DATUM.--Altitude of land-surface datum is 4,790 ft (1,460 m). Measuring point: Top of 2 in (5 cm) opening in concrete base, 1.21 ft (0.37 m) above land-surface datum.
PERIOD OF RECORD.--Mar. 1944 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 77.97 ft (23.77 m) below land-surface datum, Mar. 27, 1944; lowest measured, 113.50 ft (34.60 m) below land-surface datum, Aug. 20, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Jan. ~~8~~	~~96.98~~	Not measured
Sept. 01 Aug. 19	103.55	105.33

Part 2

341852103090701. Local number, 1N.36E.21.213.
LOCATION.--Lat. 34°18'52", long 103°09'07", Hydrologic Unit 12050001.
Owner: Unknown.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled irrigation well, casing data and depth unknown.
DATUM.--Altitude of land-surface datum is 4,141 ft (1,262 m). Measuring point: 1 in. hole in pump base west side 1.45 ft (0.4419 m) above land-surface datum.
PERIOD OF RECORD.--January 1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 141.57 ft. (43.15 m) below land-surface datum, Jan. 30, 1963; lowest measured, ~~190.97~~ 195.51 ft (~~58.21~~ 59.59 m) below land-surface datum, ~~Aug. 19, 1981~~ Sept. 1, 1982.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Jan. ~~9~~ 11	~~187.23~~ 190.35
Sept 01 ~~Aug. 19~~	~~190.97~~ 195.51

341400103353701. Local number, 1S.32E.16.112.
LOCATION.--Lat 34°14'00", long 103°35'37", Hydrologic Unit 12050001.
Owner: Dorsey Nash.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 16 in (0.41 m), depth unknown, surface casing.
DATUM.--Altitude of land-surface datum is 4,010 ft (1,249 m). Measuring point: Edge of center hole in old car wheel, 0.30 ft (0.10 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 80.75 ft (24.61 m) below land-surface datum, Jan. 6, 1971; lowest measured, 91.75 ft (27.96 m) below land-surface datum, July 21, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Jan. 9	89.19
Aug.	not measured

341530103292001. Local number, 1S.33E.4.1121.
LOCATION.--Lat 34°15'30", long 103°29'20", Hydrologic Unit 12050001.
Owner: Unknown.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 12 in (0.30 m), depth unknown.
DATUM.--Altitude of land-surface datum is 4,109 ft (1,252 m). Measuring point: Top of casing level with 4 ft x 4 ft (1 m x 1 m) concrete base, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 79.07 ft (24.10 m) below land-surface datum, Jan. 8, 1973; lowest measured, 96.27 ft (29.34 m) below land-surface datum, Aug. 18, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Jan. ~~9~~ 11	~~89.04~~ 87.22
Sept 01 ~~Aug. 18~~	~~96.27~~ Not measured

340740103145501. Local number, 2S.35E.23.111.
LOCATION.--Lat 34°07'40", long 103°14'55", Hydrologic Unit 12050001.
Owner: P. O. Dozier.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well diameter, depth and casing information not available.
DATUM.--Altitude of land-surface datum is 3,963 ft (1,208 m). Measuring point: Top of concrete pump base, 1.50 ft (0.46 m) above land-surface datum.
PERIOD OF RECORD.--Jan 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.32 ft (6.50 m) below land-surface datum, Mar. 27, 1951; lowest measured, 49.26 ft (15.01 m) below land-surface datum, Aug. 11, 1969.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Jan. ~~12~~ 8	~~45.75~~ 41.93
Sept. 01 ~~Aug.~~	not measured 44.51

ROOSEVELT COUNTY
Causey-Lingo Area

335655103032001. Local number, 6S.38E.21.233.
LOCATION.--Lat 33°56'55", long 103°03'20", Hydrologic Unit 12050001.
Owner: C. C. Harvey.
AQUIFER.--Undifferentiated Cretaceous rocks.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 140 ft (42.7 m), cased to 140 ft (42.7 m), casing slotted 100-140 ft (30.5-42.7 m).
DATUM.--Altitude of land-surface datum is 3,927 ft (1,197 m). Measuring point: Top of 1 in (2.54 cm) hole in north side of pump, 2.10 ft (0.64 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 87.18 ft (26.57 m) below land-surface datum, Jan. 13, 1956; lowest measured, 115.21 ft (35.12 m) below land-surface datum, Aug. 11, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Jan. 7	~~97.72~~	97.68
Aug. ~~20~~ 31	~~98.13~~	97.68

SANTA FE COUNTY Estancia Valley

350525106025001. Local number, 10N.8E.13.133.
LOCATION.--Lat 35°05'25", long 106°02'50", Hydrologic Unit 13050001.
Owner: W. R. Irby.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter unknown, reported depth 513 ft (156 m), casing information not available.
DATUM.--Altitude of land-surface datum is 6,265 ft (1,910 m). Measuring point: Lower inside edge of hole in south side of casing, 0.45 ft (0.14 m) above land-surface datum.
PERIOD OF RECORD.--Feb. 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 86.75 ft (26.44 m) below land-surface datum, Feb. 22, 1950; lowest measured, 150.00 ft (45.72 m) below land-surface datum, July 17, 1981.

WATER YEAR, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Feb 24 ~~Mar. 16~~	~~128.97~~	130.60
Aug. ~~July 17~~ 30	150.00	146.63

350340106005001. Local number, 10N.9E.29.130.
LOCATION.--Lat 35°03'40", long 106°00'50", Hydrologic Unit 13050001.
Owner: Glen Terry.
AQUIFER.--Glorieta Sandstone of Permian Age.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 14 in (0.36 m), reported depth 200 ft (61.0 m), cased to 140 ft (42.7 m).
DATUM.--Altitude of land-surface datum is 6,240 ft (1,902 m). Measuring point: Top edge of 3 in (7.5 cm) pipe on north side of pump, 1.30 ft (0.40 m) above land-surface datum.
PERIOD OF RECORD.--Feb. 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.96 ft (17.67 m) below land-surface datum, Feb. 16, 1951; lowest measured, ~~106.57~~ 116.12 ft (~~32.48 m~~ (35.39 m)) below land-surface datum, ~~Sept. 25, 1979.~~ Aug 30, 1982

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Feb 24 ~~Mar. 16~~	~~100.40B~~	100.38
Aug ~~July 17~~ 30	~~100.38~~	116.12

Santa Fe Area

353810106025501. Local number, 16N.8E.12.131.
LOCATION.--Lat 35°38'10", long 106°02'55", Hydrologic Unit 13020201.
Owner: Santa Fe Country Club.
AQUIFER.--Ancha Formation(?) and Tesuque Formation (?).
WELL CHARACTERISTICS.--Drilled unused well, diameter 5 in (0.13 m), depth 400 ft (122 m).
DATUM.--Altitude of land-surface datum is 6,420 ft (1,957 m). Measuring point: Top of 3/8 in (0.95 cm) hole in cover plate, 0.20 ft (0.06 m) above land-surface datum.
PERIOD OF RECORD.--Aug. 1951, Jan. 1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 247.93 ft (75.56 m) below land-surface datum, Jan. 22, 1979; lowest measured, 272.06 ft (82.92 m) below land-surface datum, Aug. 10, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Wrong for well in Sn Fe

DATE	WATER LEVEL	
Jan. ~~19~~ 20	~~248.96~~	249.40
Aug. 13	249.42	

~~B-Pumped recently~~

SIERRA COUNTY
Hot Springs Area

331002107150001. Local number, 13S.4W.21.213.
LOCATION.--Lat 33°10'02", long 107°15'00", Hydrologic Unit 13030101.
Owner: Unknown.
AQUIFER.--Alluvium Formation.
WELL CHARACTERISTICS.--Drilled unused irrigation well, diameter 13 in (0.3962 m), depth unknown.
DATUM.--Altitude of land-surface datum is 4,355 ft (1,327 m). Measuring point: 1½ in hole in top of discharge pipe, 3.0 ft (0.9144 m) above land-surface datum.
PERIOD OF RECORD.--Feb. 25, 1972 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.35 ft (18.69 m) below land-surface datum, Feb. 10, 1976; lowest measured, 65.56 ft (19.98 m) below land-surface datum, Feb. 25, 1972.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Mar. ~~9~~ 30	~~64.00~~ 63.34 not measured
~~Sept. 29~~ Sept. 21	63.29

325550107184001. Local number, 15S.5W.24.312.
LOCATION.--Lat 32°55'50", long 107°18'40", Hydrologic Unit 13030101.
Owner: William M. Dawson.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 16 in (0.41 m), depth and casing information not available.
DATUM.--Altitude of land-surface datum is 4,279 ft (1,304 m). Measuring point: Top of casing, 1.20 ft (0.36 m) above land-surface datum.
PERIOD OF RECORD.--May 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 25.13 ft (7.66 m) below land-surface datum, Sept. 11, 1975; lowest, 40.76 ft (12.42 m) below land-surface datum, June 29, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	34.61	34.87	37.31	38.65	39.02	39.29	39.72	40.07	40.10	38.60	33.74	35.17
10	34.39	35.13	37.68	38.75	39.06	39.33	39.79	39.69	40.13	37.17	34.00	35.60
15	34.28	35.47	37.99	38.81	39.11	39.38	39.87	39.60	40.18	35.84	34.21	35.92
20	34.35	35.90	38.21	38.87	39.15	39.46	39.93	39.73	40.23	34.73	34.37	36.14
25	34.44	36.37	38.40	38.92	39.20	39.54	40.00	39.90	40.28	33.98	34.53	36.45
eom	34.68	36.80	38.55	38.97	39.23	39.64	40.06	40.04	40.37	33.67	34.79	36.80

WTR YEAR 1981 MAX ~~33.65 Aug. 1, 1981~~ 35.31 Sept. 30, 1982 MIN ~~40.37 June 30, 1981~~ 40.64 June 19, 1982

Rincon Valley

325350107175501. Local number, 16S.5W.25.211.
LOCATION.--Lat 32°53'35", long 107°17'55", Hydrologic Unit 13030102.
Owner: U.S. Government.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 10 in (0.25 m), depth 32 ft (9.8 m), cased to 32 ft (9.8 m).
DATUM.--Altitude of land-surface datum is 4,050 ft (1,234 m). Measuring point: Top of casing, 3.00 ft (0.91 m) above land-surface datum.
PERIOD OF RECORD.--Apr. 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.03 ft (3.97 m) below land-surface datum, Jan. 8, 1975; lowest measured, 27.78 ft (8.47 m) below land-surface datum, Jan. 6, 1958.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Mar. ~~12~~ 15	~~23.30~~ 22.98
Sept. ~~29~~ 21	22.68 22.55

TAOS COUNTY
Sunshine Valley

365036105355301. Local number, 30N.13E.18.1121.
LOCATION.--Lat 36°50'36", long 105°35'53", Hydrologic Unit 13020101.
Owner: Unknown.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 10 in (0.25 m), depth 500 ft (152 m).
DATUM.--Altitude of land-surface datum is 7,600 ft (2,316 m). Measuring point: Top of casing, 2.00 ft (0.60 m) above land-surface datum.
PERIOD OF RECORD.--Sept. 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 70.00 ft (21.34 m) below land-surface datum, Aug. 14, 1975; lowest measured, 77.33 ft (23.50 m) below land-surface datum, Aug. 9, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Mar. 18 ~~Feb. 16~~	~~75.12~~ 74.92
Sept. 2 ~~July~~	~~not measured~~ 75.04

TAOS COUNTY
Sunshine Valley

65410105354501. Local number, 2S.73W.5.222.
LOCATION.--Lat 36°54'10", long 105°35'45", Hydrologic Unit 13020101.
Owner: Unknown.
AQUIFER.--Santa Fe Group.
WELL CHARACTERISTICS.--Drilled domestic and stock water-table well, diameter 6 in (0.15 m), depth unknown.
DATUM.--Altitude of land-surface datum is 7,587 ft (2,313 m). Measuring point: 1 in (2.54 cm) hole in plate over casing, 0.10 ft (0.3 m) above land-surface datum.
PERIOD OF RECORD.--Feb. 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 77.54 ft (26.63 m) below land-surface datum, Aug. 14, 1975; lowest measured, 84.78 ft (25.77 m) below land-surface datum, Jan. 27, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Mar 18 ~~Feb. 18~~	~~81.16~~ 81.67
Sept. 02 ~~July~~	~~not measured~~ 81.05

TORRANCE COUNTY
Estancia Valley

343458106042001. Local number, 4N.8E.11.433.
LOCATION.--Lat 34°34'58", long 106°04'20", Hydrologic Unit 13050001.
Owner: F. D. Breedlove.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 16 in (0.41 m), reported depth 180 ft (54.9 m), cased to 160 ft (48.8 m).
DATUM.--Altitude of land-surface datum is 6,148 ft (1,874 m). Measuring point: Top of casing at high point on northwest side of well, 0.70 ft (0.21 m) above land-surface datum.
PERIOD OF RECORD.--Feb. 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 82.93 ft (25.28 m) below land-surface datum, May 2, 1951; lowest measured, ~~117.19 ft (35.71 m)~~ below land-surface datum, ~~July 19,~~ 1979.
117.25 ft (35.74 m) Aug. 30, 1982

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Feb. 24 ~~Mar. 16~~	~~110.44~~ 108.97
Aug. 30 ~~July 17~~	~~116.97~~ 117.25

344016106064701. Local number, 5N.8E.8.424.
LOCATION.--Lat 34°40'16", long 106°06'47", Hydrologic Unit 13050001.
Owner: A.T. Austin.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), reported depth 204 ft (62.2 m), cased to 98 ft (29.9 m).
DATUM.--Altitude of land-surface datum is 6,214 ft (1,894 m). Measuring point: Top of casing, 0.80 ft (0.24 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.03 ft (18.91 m) below land-surface datum, Mar. 23, 1948; lowest measured, ~~118.93~~ ft (36.24 m) below land-surface datum, ~~Jan. 7, 1980.~~
129.40 (39.44 m) Aug. 30, 1980

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Feb. 24 ~~Mar. 16~~	118.37 114.82
Aug 30 ~~July~~	pumping 129.40

344234106074901. Local number, 6N.8E.32.212.
LOCATION.--Lat 34°42'34", long 106°07'49", Hydrologic Unit 13050001.
Owner: Revis Strong.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), reported depth 209 ft (63.7 m), cased to 84 ft (25.6 m).
DATUM.--Altitude of land-surface datum is 6,165 ft (1,879 m). Measuring point: Top of 1 1/2 in (3.8 cm) hole in pumpbase, 0.04 ft (0.01 m) above land-surface datum.
PERIOD OF RECORD.--Feb. 1947 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.22 ft (7.08 m) below land-surface datum, Feb. 18, 1947; lowest measured, 80.26 ft (24.46 m) below land-surface datum, July 9, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Feb. 24 ~~Mar. 16~~	~~72.51~~ 74.34
Aug. 30 ~~July~~	~~pumping~~ 78.89

TORRANCE COUNTY
Estancia Valley

344622105575501. Local number, 6N.9E.11.211.
LOCATION.--Lat 34°46'22", long 105°57'55", Hydrologic Unit 13050001.
Owner: R. O. Brown.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), reported depth 148 ft (45.1 m), cased to 140 ft (42.7 m).
DATUM.--Altitude of land-surface datum is 6,086 ft (1,855 m). Measuring point: Top of casing, 0.75 ft (0.23 m) above land-surface datum.
PERIOD OF RECORD.--Feb. 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.80 ft (1.77 m) below land-surface datum, Feb. 8, 1950; lowest measured, 28.25 ft (8.61 m) below land-surface datum, July 19, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Feb. 24 ~~Mar. 16~~	~~16.50~~	14.94
Aug. 30 ~~July 17~~	23.58	24.78

344937106092201. Local number, 7N.7E.13.4312.
LOCATION.--Lat 34°49'37", long 106°09'22", Hydrologic Unit 13050001.
Owner: Woodrow Clements.
AQUIFER.--Madera Formation.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 7 in (0.18 m), depth and casing information not available.
DATUM.--Altitude of land-surface datum is 6,500 ft (1,980 m). Measuring point: Top of casing, level with concrete slab, 0.2 ft (0.06 m) above land-surface datum.
REMARKS.--Old CO_2 well.
PERIOD OF RECORD.--Feb. 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 110.01 ft (33.53 m) below land-surface datum, Jan. 19, 1979; lowest measured, 110.37 ft (33.55 m) below land-surface datum, Jan. 18, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Feb. 24 ~~Mar. 16~~	~~110.31~~	110.34
Aug. 30 ~~July 17~~	110.33	110.34

345231106043601. Local number, 8N.8E.35.322.
LOCATION.--Lat 34°52'31", long 106°04'36", Hydrologic Unit 13050001.
Owner: A. C. Hibner.
AQUIFER.--Valley Fill(?).
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), reported depth 228 ft (69.5 m), cased to 110 ft (33.5 m).
DATUM.--Altitude of land-surface datum is 6,240 ft (1,902 m). Measuring point: Top of casing, 0.75 ft (0.23 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.08 ft (15.57 m) below land-surface datum, Mar. 25, 1948; lowest measured, 114.14 ft (34.79 m) below land-surface datum, July 17, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Mar. 16	105.15
July 17	114.14

345900106034301. Local number, 9N.8E.24.332.
LOCATION.--Lat 34°59'00", long 106°30'43", Hydrologic Unit 13050001.
Owner: Valley Land and Irrigation Co.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, depth unknown.
DATUM.--Altitude of land-surface datum is 6,380 ft (1,944 m). N.W. anchor bolt hole on pump base, 1.00 ft (0.3048 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 72.08 ft (21.96 m) below land-surface datum, Jan. 30, 1980; lowest measured, 74.07 ft (22.58 m) below land-surface datum, Mar. 16, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL
Mar. 16	74.07
July 17	pumping

UNION COUNTY
Clayton Area

360940103083501. Local number, 19N.36E.23.244.
LOCATION.--Lat 36°09'40", long 103°08'35", Hydrologic Unit 11090102.
Owner: Stevens.
AQUIFER.--Dakota and Purgatoire Sandstone.
WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 14 in (0.36 m), depth 206 ft (62.8 m).
DATUM.--Altitude of land-surface datum is 4,326 ft (1,318 m). Measuring point: Top of casing, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--Mar. 1970 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 145.22 ft (44.26 m) below land-surface datum, Mar. 17, 1971; lowest measured, 155.65 ft (47.77 m) below land-surface datum, Mar. 24, 1970.

WATER YEAR, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Feb. ~~16~~ 11	~~146.15~~	147.59
Sept. ~~3~~ 01	~~145.63~~	145.81

361910103170501. Local number, 24N.36E.17.244.
LOCATION.--Lat 36°19'10", long 103°17'05", Hydrologic Unit 11090103.
Owner: Glen Burrows.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 10 in (0.25 m), depth 231 ft (70.4 m).
DATUM.--Altitude of land-surface datum is 4,707 ft (1,434 m). Measuring point: Top of casing, 1.30 ft (0.40 m) above land-surface datum.
PERIOD OF RECORD.--May 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 82.99 ft (27.23 m) below land-surface datum, Jan 8, 1972; lowest measured, ~~88.82~~ 89.47 ft (~~27.07~~ 27.27 m) below land-surface datum, ~~Sept. 4, 1981.~~ Sept. 01, 1982

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Feb. ~~2~~ 11	~~88.50~~	89.10
Sept. ~~4~~ 01	~~88.82~~	89.47

363005103081001. Local number, 26N.36E.7.142.
LOCATION.--Lat 36°30'05", long 103°08'10", Hydrologic Unit 11090103.
Owner: J. E. Armes.
AQUIFER.--Dakota, Purgatoire, and Morrison Sandstone.
WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 16 in (0.41 m), depth 770 ft (234 m).
DATUM.--Altitude of land-surface datum is 4,980 ft (1,517 m). Measuring point: Top of 16 in (0.41 m) casing level with concrete base, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--Mar. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 127.41 ft (38.83 m) below land-surface datum, Mar. 17, 1971; lowest measured, 233.26 ft (70.91 m) below land-surface datum, Sept. 20, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	
Feb. 11 ~~Jan. 31~~	~~165.15~~	150.72
Sept. 01 ~~Sept. 4~~	~~165.15~~	180.90

EXPLANATION OF GEOLOGIC UNIT (AQUIFER) CODES (LISTED FROM YOUNGEST TO OLDEST AGE) U-UPPER,M-MIDDLE, L-LOWER: 000 EXRV-Unknown, Extrusive Rocks; 000 IRSV-Unknown, Intrusive Rocks; 110 AVMB-Cenozoic, Quaternary Alluvium, Bolson Deposits and other Surface Deposits; 110 BLSN-Cenozoic, Quaternary, Bolson Fill; 110 PTOD-Cenozoic, Quaternary, Pediment, Terrace, and other Deposits of Gravel, Sand and Caliche; 111 MCCR-Cenozoic, Quaternary, Holocene, McCartys Basalt Flow; 112 LGUN-Cenozoic, Quaternary, Pleistocene, Laguna Basalt Flow; 112 SNTF-Cenozoic, Quaternary, Pleistocene, Santa Fe Group; 112 SNTFU-Cenozoic, Quaternary, Pleistocene, Santa Fe Group, Upper Part; 120 DTIL-Cenozoic, Tertiary, Datil Formation; 120 DTILC-Cenozoic, Tertiary, Datil Formation (Clastic Rocks of Volcanic Fragments); 121 BDHC-Cenozoic, Tertiary, Pliocene, Bidahochi Formation; 124 BACA-Cenozoic, Tertiary, Eocene, Baca Formation; 210 MCDK-Mesozoic, Cretaceous, Mancos Shale, Lower Part, and Dakota Sandstone, Undivided; 210 MNCS-Mesozoic, Cretaceous, Mancos Shale; 211 DKOT-Mesozoic, Upper Cretaceous, Dakota Sandstone or Formation; 211 GLLP-Mesozoic, Upper Cretaceous, Gallup Sandstone; 211 MENF-Mesozoic, Upper Cretaceous, Menefee Formation; 211 MVRD-Mesozoic, Upper Cretaceous, Mesaverde Group; 211 CRVC-Mesozoic, Upper Cretaceous, Crevasse Canyon Formation; 220 GLNC-Mesozoic, Jurassic, Glen Canyon Group; 221 WSRC-Mesozoic, Upper Jurassic, Westwater Canyon Sandstone Member of Morrison Formation; 221 ZUNIS-Mesozoic, Upper Jurassic, Zuni Sandstone; 231 CHNL-Mesozoic, Upper Triassic, Chinle Formation; 231 SNSL-Mesozoic, Upper Triassic, Sonsela Sandstone Bed of Petrified Forest Member of Chinle Formation; 231 WNGT-Mesozoic, Upper Triassic, Wingate Sandstone; 310 YESO-Paleozoic, Permian, Yeso Formation, Manzano Group; 313 SADG-Paleozoic, Permian, Guadalupian, San Andres Limestone and Glorieta Sandstone; 325 MDER-Paleozoic, Middle Pennsylvanian, Des Moinesian, Madera Limestone; 400 PCMB-Paleozoic, Cambrian, Precambrian, Precambrian Erathem.

REMARKS.--Ground Water sites in this table are segregated by county which appear alphabetically. The sites are then listed in ascending local identifiers.

CATRON COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)
01S.10W.20.121	341241107540901	003	SP	80-11-18	1130	110AVMB	—	—	—
01S.10W.20.142 BRONCO BI	341230107535901	003	GW	80-11-04	1132	120DTIL	—	—	—
01S.10W.20.213 THOMPSON	341236107535401	003	SP	80-11-04	1017	120DTIL	—	—	—
01S.19W.01.223 CAJON WEL	341525108461801	003	GW	80-10-15	1055	124BACA	127.60	—	—
02N.17W.13.242	342356108335001	003	SP	81-03-12	1340	120DTIL	—	—	—
		003	SP	81-04-21	1100	120DTIL	—	—	—
02S.10W.10.222 DATIL CAM	340913107511601	003	GW	81-04-29	1510	120DTIL	—	—	—
		003	GW	81-09-03	0935	120DTIL	—	—	—
03N.15W.22.111 COTTONWOO	342835108241801	003	SP	81-03-24	1311	120DTIL	—	—	—
03N.21W.15.322 CHAVEZ WE	342905109014401	003	GW	81-03-13	1207	231CHNL	—	—	—
04N.10W.22.421 SISSY WEL	343320107520301	003	GW	81-04-29	1200	211CRVC	64.43	72	7800.00
04N.10W.24.441 WILD HORS	343312107495901	003	GW	81-04-28	1545	110AVMB	28.47	37	7368.00
04N.10W.25.344 MC WELL	343213107502101	003	GW	81-04-28	1430	110AVMB	—	—	7310.00
04N.10W.31.121 PAYNE WIN	343204107554001	003	GW	81-04-29	1545	211CRVC	—	200	7588.00
04N.11W.18.444 YOUNGER F	343357108010701	003	GW	81-04-28	1615	211CRVC	123.10	151	7287.00
04N.11W.26.144 COX CAMP	343237107573601	003	GW	81-04-29	1400	211CRVC	56.15	63	7540.00
04N.18W.28.211 NEW SANTA	343258108433701	003	SP	80-10-30	1640	211GLLP	—	—	6630.00
04N.18W.36.312 ESCOJEDA	343136108404501	003	GW	80-11-20	1430	211GLLP	120.00	165	6566.00
04N.19W.14.314A GOESLING	343412108481601	003	GW	80-10-29	1600	211GLLP	109.00	—	6622.00
04N.19W.15.422 GOESLING	343717108483201	003	GW	80-10-29	1500	210MNCS	115.00	135	6570.00
04N.19W.25.414 PUEBLO WM	343224108463801	003	GW	80-10-30	1340	313SADG	55.13	1050	6475.00
04N.19W.28.234 GOESLING	343242108495001	003	GW	80-10-29	1330	313SADG	4.80	1350	6480.00
		003	GW	80-11-20	1600	313SADG	7.50	—	—

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

CATRON COUNTY - continued

LOCAL IDENTI-I-FIER	DATE OF SAMPLE	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE, INSTANTANEOUS (GPM) (00059)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L ASCA) (00915)
01S.10W.20.121	80-11-18	--	--	--	515	7.8	9.5	220	5	63
01S.10W.20.142 BRONCO BI	80-11-04	--	20	--	440	8.8	12.0	13	0	4.7
01S.10W.20.213 THOMPSON	80-11-04	--	--	--	350	7.4	13.0	160	0	47
01S.19W.01.223 CAJON WEL	80-10-15	--	--	--	721	8.3	15.0	220	0	45
02N.17W.13.242	81-03-12	--	--	--	460	7.7	7.0	220	--	55
	81-04-21	--	--	--	528	7.2	15.0	--	--	--
02S.10W.10.222 DATIL CAM	81-04-29	--	206	--	520	7.8	14.0	--	--	--
	81-09-03	--	--	--	--	--	16.5	--	--	--
03N.15W.22.111 COTTONWOO	81-03-24	--	--	--	525	8.0	13.0	250	--	69
03N.21W.15.322 CHAVEZ WE	81-03-13	--	--	--	3460	7.9	8.0	820	--	180
04N.10W.22.421 SISSY WEL	81-04-29	--	72	1.0	1350	7.4	17.0	350	--	94
04N.10W.24.441 WILD HORS	81-04-28	--	37	1.0	2600	7.6	13.5	290	--	80
04N.10W.25.344 MC WELL	81-04-28	--	--	1.8	1050	8.5	15.0	35	--	9.9
04N.10W.31.121 PAYNE WIN	81-04-29	4	200	1.5	2500	7.0	12.0	820	--	240
04N.11W.18.444 YOUNGER F	81-04-28	E600	151	.5	1240	7.8	14.0	460	--	130
04N.11W.26.144 COX CAMP	81-04-29	--	63	1.0	1840	7.7	13.0	260	0	72
04N.18W.28.211 NEW SANTA	80-10-30	--	--	--	900	8.0	13.0	54	0	16
04N.18W.36.312 ESCOJEDA	80-11-20	E480	165	4.0	600	9.6	14.0	7	0	1.8
04N.19W.14.314A GOESLING	80-10-29	--	--	1.0	4370	8.1	15.0	650	420	180
04N.19W.15.422 GOESLING	80-10-29	10	135	1.0	4490	8.4	--	200	0	61
04N.19W.25.414 PUEBLO WM	80-10-30	180	1050	12	1600	6.7	34.0	500	42	150
04N.19W.28.234 GOESLING	80-10-29	60	1350	80	1440	6.9	28.0	620	190	180
	80-11-20	60	1350	80	1300	6.0	29.0	610	190	180

LOCAL IDENTI-I-FIER	DATE OF SAMPLE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY FIELD (MG/L AS CACO3) (00410)	ALKALINITY LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)
01S.10W.20.121	80-11-18	14	34	1.0	1.5	--	210	65	15	.4
01S.10W.20.142 BRONCO BI	80-11-04	.4	81	9.6	.3	--	150	24	13	.6
01S.10W.20.213 THOMPSON	80-11-04	11	33	1.1	.9	--	190	42	10	.4
01S.19W.01.223 CAJON WEL	80-10-15	26	76	2.2	4.9	--	240	78	37	.4
02N.17W.13.242	81-03-12	21	17	.5	2.4	--	210	23	12	.4
	81-04-21	--	--	--	--	--	--	--	--	--
02S.10W.10.222 DATIL CAM	81-04-29	--	--	--	--	--	--	--	--	--
	81-09-03	--	--	--	--	--	--	--	--	--
03N.15W.22.111 COTTONWOO	81-03-24	18	28	.8	.7	--	270	19	14	.7
03N.21W.15.322 CHAVEZ WE	81-03-13	91	460	7.0	25	--	220	850	510	2.1
04N.10W.22.421 SISSY WEL	81-04-29	27	160	3.7	3.4	--	300	280	57	.1
04N.10W.24.441 WILD HORS	81-04-28	21	560	14	4.6	--	390	900	60	.7
04N.10W.25.344 MC WELL	81-04-28	2.6	230	17	1.2	--	360	170	7.0	1.0
04N.10W.31.121 PAYNE WIN	81-04-29	53	280	4.3	5.3	--	340	930	44	.2
04N.11W.18.444 YOUNGER F	81-04-28	32	110	2.2	2.3	--	240	390	34	.5
04N.11W.26.144 COX CAMP	81-04-29	19	340	9.2	3.4	--	350	500	67	.5
04N.18W.28.211 NEW SANTA	80-10-30	3.4	200	12	1.1	--	310	150	8.6	.5
04N.18W.36.312 ESCOJEDA	80-11-20	.5	170	29	.6	--	280	100	7.9	1.0
04N.19W.14.314A GOESLING	80-10-29	49	770	13	6.2	230	--	2100	23	.8
04N.19W.15.422 GOESLING	80-10-29	12	900	28	5.4	240	--	1900	20	.7
04N.19W.25.414 PUEBLO WM	80-10-30	31	150	2.9	13	--	--	280	68	.0
04N.19W.28.234 GOESLING	80-10-29	41	88	1.5	9.7	430	--	280	63	1.0
	80-11-20	40	86	1.5	9.3	--	420	290	63	.9

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

CATRON COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)
01S.10W.20.121	80-11-18	27	360	346	.00	—	2	60	40	1
01S.10W.20.142 BRONCO BI	80-11-04	18	236	232	.03	—	1	<2	30	<1
01S.10W.20.213 THOMPSON	80-11-04	32	301	295	.46	—	1	30	20	2
01S.19W.01.223 CAJON WEL	80-10-15	30	468	471	6.4	—	5	200	300	<1
02N.17W.13.242	81-03-12	27	290	292	1.7	—	2	40	20	<1
	81-04-21	—	—	—	—	—	—	—	—	—
02S.10W.10.222 DATIL CAM	81-04-29	—	—	—	—	—	—	—	—	—
	81-09-03	—	—	—	—	—	—	—	—	—
03N.15W.22.111 COTTONWOO	81-03-24	34	345	346	.10	—	3	80	10	<1
03N.21W.15.322 CHAVEZ WE	81-03-13	15	—	2270	.07	—	0	0	—	0
04N.10W.22.421 SISSY WEL	81-04-29	9.6	—	816	.64	—	—	—	90	—
04N.10W.24.441 WILD HORS	81-04-28	9.6	—	1870	.09	.690	—	—	120	—
04N.10W.25.344 MC WELL	81-04-28	10	—	649	.12	—	—	—	150	—
04N.10W.31.121 PAYNE WIN	81-04-29	12	—	1770	.61	—	—	—	100	—
04N.11W.18.444 YOUNGER F	81-04-28	13	—	868	2.6	—	—	—	130	—
04N.11W.26.144 COX CAMP	81-04-29	7.8	—	1230	3.2	—	—	—	120	—
04N.18W.28.211 NEW SANTA	80-10-30	11	—	577	.00	—	—	—	170	—
04N.18W.36.312 ESCOJEDA	80-11-20	9.1	—	461	.22	—	—	—	320	—
04N.19W.14.314A GOESLING	80-10-29	6.5	—	3270	.00	—	—	—	280	—
04N.19W.15.422 GOESLING	80-10-29	7.8	—	3050	.00	—	—	—	300	—
04N.19W.25.414 PUEBLO WM	80-10-30	15	—	985	.00	—	—	—	280	—
04N.19W.28.234 GOESLING	80-10-29	18	—	940	.00	—	—	—	110	—
	80-11-20	17	—	940	.00	—	13	40	150	<1

LOCAL IDENT-I-FIER	DATE OF SAMPLE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
01S.10W.20.121	80-11-18	0	6	50	0	50	.0	0	0
01S.10W.20.142 BRONCO BI	80-11-04	0	1	<10	3	<1	.0	0	0
01S.10W.20.213 THOMPSON	80-11-04	0	1	1900	2	470	.0	0	0
01S.19W.01.223 CAJON WEL	80-10-15	0	3	<10	2	3	.0	21	1
02N.17W.13.242	81-03-12	0	2	10	1	50	.0	0	0
	81-04-21	—	—	—	—	—	—	—	—
02S.10W.10.222 DATIL CAM	81-04-29	—	—	—	—	—	—	—	—
	81-09-03	—	—	—	—	—	—	—	—
03N.15W.22.111 COTTONWOO	81-03-24	10	2	20	2	30	.0	0	0
03N.21W.15.322 CHAVEZ WE	81-03-13	0	3	20	1	90	.0	0	0
04N.10W.22.421 SISSY WEL	81-04-29	—	—	1400	—	20	—	—	—
04N.10W.24.441 WILD HORS	81-04-28	—	—	1300	—	180	—	—	—
04N.10W.25.344 MC WELL	81-04-28	—	—	250	—	10	—	—	—
04N.10W.31.121 PAYNE WIN	81-04-29	—	—	1600	—	330	—	—	—
04N.11W.18.444 YOUNGER F	81-04-28	—	—	150	—	30	—	—	—
04N.11W.26.144 COX CAMP	81-04-29	—	—	60	—	7	—	—	—
04N.18W.28.211 NEW SANTA	80-10-30	—	—	10	—	<1	—	—	—
04N.18W.36.312 ESCOJEDA	80-11-20	—	—	40	—	<1	—	—	—
04N.19W.14.314A GOESLING	80-10-29	—	—	60	—	180	—	—	—
04N.19W.15.422 GOESLING	80-10-29	—	—	180	—	110	—	—	—
04N.19W.25.414 PUEBLO WM	80-10-30	—	—	1300	—	100	—	—	—
04N.19W.28.234 GOESLING	80-10-29	—	—	740	—	10	—	—	—
	80-11-20	0	0	680	0	10	.0	0	0

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

CATRON COUNTY - concluded

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)
01S.10W.20.121	341241107540901	003	SP	80-11-18	1130	10	.8	< 2.4	1.1
01S.10W.20.142 BRONCO BI	341230107535901	003	GW	80-11-04	1132	8.4	< 2.9	1.8	< 1.6
01S.10W.20.213 THOMPSON	341236107535401	003	SP	80-11-04	1017	< 4.1	< 4.5	3.2	< 2.1
01S.19W.01.223 CAJON WEL	341525108461801	003	GW	80-10-15	1055	22	—	7.1	—
02N.17W.13.242	342356108335001	003	SP	81-03-12	1340	< 5.4	< .4	4.0	< .4
		003	SP	81-04-21	1100	< 6.9	< .7	4.4	.9
02S.10W.10.222 DATIL CAM	340913107511601	003	GW	81-04-29	1510	41	.5	< 3.8	1.6
		003	GW	81-09-03	0935	18	—	< 5.9	—
03N.15W.22.111 COTTONWOO	342835108241801	003	SP	81-03-24	1311	< 7.6	.4	< 2.7	1.6
03N.21W.15.322 CHAVEZ WE	342905109014401	003	GW	81-03-13	1207	< 37	< .4	25	.6

LOCAL IDENT-I-FIER	DATE OF SAMPLE	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
01S.10W.20.121	80-11-18	< 2.3	1.1	—	3.6
01S.10W.20.142 BRONCO BI	80-11-04	1.8	< 1.5	—	1.4
01S.10W.20.213 THOMPSON	80-11-04	3.0	< 2.0	—	< .6
01S.19W.01.223 CAJON WEL	80-10-15	6.8	—	—	10
02N.17W.13.242	81-03-12	3.8	< .4	—	.8
	81-04-21	4.2	.9	—	—
02S.10W.10.222 DATIL CAM	81-04-29	< 3.6	1.6	—	—
	81-09-03	< 5.7	—	.10	8.0
03N.15W.22.111 COTTONWOO	81-03-24	< 2.5	1.5	—	8.0
03N.21W.15.322 CHAVEZ WE	81-03-13	24	.6	—	—

CHAVES COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)
07S.22E.36. BAJILLO WELL	333952104394801	005	GW	81-08-20	1300	—	—	—	7.6
08S.22E.13. DICK CORN RA	333731104401101	005	GW	81-08-20	1000	—	—	2250	7.3
08S.22E.22 DICK CORN HQ	333643104421201	005	GW	81-08-20	1100	—	400.00	2100	7.4
10S.25E.01.	332830104240101	005	GW	81-07-23	1030	—	—	3450	7.5
10S.26E.07.230	332742104200801	005	GW	81-07-23	1120	—	—	4450	8.1
14S.20E.29 CHERRY WELL	330400105010501	005	GW	81-08-10	1400	—	—	650	7.1
15S.23E.06.22	330300104405101	005	GW	81-07-23	1430	—	—	900	7.1
21S.23E.22	322757104350101	005	GW	81-08-13	1115	—	—	700	7.0

LOCAL IDENT-I-FIER	DATE OF SAMPLE	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
07S.22E.36. BAJILLO WELL	81-08-20	23.0	1000	290	69	670	9.2	2.7	120	810
08S.22E.13. DICK CORN RA	81-08-20	23.0	470	130	36	330	6.6	1.6	150	300
08S.22E.22 DICK CORN HQ	81-08-20	23.0	500	140	36	290	5.7	1.6	150	310
10S.25E.01.	81-07-23	—	2100	590	150	100	1.0	6.1	110	1800
10S.26E.07.230	81-07-23	24.0	2600	540	310	200	1.7	8.3	120	2400
14S.20E.29 CHERRY WELL	81-08-10	25.0	320	74	33	14	.4	1.1	210	130
15S.23E.06.22	81-07-23	33.0	490	120	45	16	.3	1.2	220	270
21S.23E.22	81-08-13	19.0	360	86	35	13	.3	1.4	220	120

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

CHAVES COUNTY - contiuned

LOCAL IDENT-I-FIER	DATE OF SAMPLE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)
07S.22E.36. BAJILLO WELL	81-08-20	1300	.6	14	1600	3240	—	1.2	—	0
08S.22E.13. DICK CORN RA	81-08-20	500	.6	19	1430	1410	—	1.2	—	0
08S.22E.22 DICK CORN HQ	81-08-20	440	.4	16	1230	1330	—	1.2	—	1
10S.25E.01.	81-07-23	140	.6	32	—	2910	—	5.7	.020	4
10S.26E.07.230	81-07-23	270	.5	30	4280	3860	—	5.6	.010	3
14S.20E.29 CHERRY WELL	81-08-10	14	.6	17	442	416	—	1.3	—	1
15S.23E.06.22	81-07-23	12	1.5	12	651	614	.14	.12	—	1
21S.23E.22	81-08-13	21	.5	22	437	450	—	4.2	—	2

LOCAL IDENT-I-FIER	DATE OF SAMPLE	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
07S.22E.36. BAJILLO WELL	81-08-20	100	180	0	0	2	150	2
08S.22E.13. DICK CORN RA	81-08-20	100	70	1	10	1	80	0
08S.22E.22 DICK CORN HQ	81-08-20	100	70	0	10	1	20	1
10S.25E.01.	81-07-23	100	—	1	10	7	70	1
10S.26E.07.230	81-07-23	100	2600	0	20	11	90	0
14S.20E.29 CHERRY WELL	81-08-10	40	40	< 1	0	5	53	1
15S.23E.06.22	81-07-23	30	30	< 1	0	0	680	1
21S.23E.22	81-08-13	30	40	< 1	0	1	< 10	0

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
07S.22E.36. BAJILLO WELL	81-08-20	30	.4	3	0
08S.22E.13. DICK CORN RA	81-08-20	70	.2	1	0
08S.22E.22 DICK CORN HQ	81-08-20	0	.1	1	0
10S.25E.01.	81-07-23	20	.3	7	0
10S.26E.07.230	81-07-23	20	1.1	9	0
14S.20E.29 CHERRY WELL	81-08-10	14	.1	0	0
15S.23E.06.22	81-07-23	13	.3	0	0
21S.23E.22	81-08-13	< 1	.1	1	0

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)
07S.22E.36. BAJILLO WELL	333952104394801	005	GW	81-08-20	1300	< 82	<.4	< 43	<.4
08S.22E.13. DICK CORN RA	333731104401101	005	GW	81-08-20	1000	< 36	<.4	<17	<.4
08S.22E.22 DICK CORN HQ	333643104421201	005	GW	81-08-20	1100	< 33	<.4	<16	<.4
10S.25E.01.	332830104240101	005	GW	81-07-23	1030	< 83	<.4	< 42	.6
10S.26E.07.230	332742104200801	005	GW	81-07-23	1120	<110	<.4	<61	1.2
14S.20E.29 CHERRY WELL	330400105010501	005	GW	81-08-10	1400	<12	<.4	< 4.7	<.4
15S.23E.06.22	330300104405101	005	GW	81-07-23	1430	<19	<.4	< 6.5	.7
21S.23E.22	322757104350101	005	GW	81-08-13	1115	<12	<.4	9.0	<.4

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

CHAVES COUNTY - concluded

LOCAL IDENT-I-FIER	DATE OF SAMPLE	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
07S.22E.36. BAJILLO WELL	81-08-20	<41	<.4	2.2
08S.22E.13. DICK CORN RA	81-08-20	<17	<.4	1.0
08S.22E.22 DICK CORN HQ	81-08-20	<16	<.4	.9
10S.25E.01.	81-07-23	<40	.6	—
10S.26E.07.230	81-07-23	<59	1.2	<.6
14S.20E.29 CHERRY WELL	81-08-10	<4.5	<.4	.8
15S.23E.06.22	81-07-23	<6.1	.7	1.6
21S.23E.22	81-08-13	8.6	<.4	1.3

CIBOLA COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)
04N.07W.07.111 NO. 7 WIN	343537107370601	006	GW	81-05-13	1200	211MVRD	239.76	298	6744.00
04N.09W.01.341 B MAJOR	343550107434501	006	GW	81-03-17	1255	210MNCS	—	—	7588.00
04N.09W.09.131 B MAJOR	343523107473301	006	GW	81-03-02	1545	211CRVC	51.00	—	7718.00
04N.11W.06.111 HIGHLAND	343635108021201	006	GW	81-04-27	1645	211CRVC	214.00	271	7346.00
04N.11W.08.124A TWIN WEL	343528108003101	006	GW	81-04-29	1300	211CRVC	71.65	154	7200.00
04N.11W.11.213 SCHOOL HO	343527107352701	006	GW	81-05-05	1115	211GLLP	149.30	221	7336.00
04N.12W.02.133 MALT WELL	343612108041301	006	GW	81-04-27	1745	211CRVC	65.00	96	7410.00
04N.12W.11.342 LOWLANDS	343500108034701	006	GW	81-04-28	1500	211CRVC	85.00	166	7198.00
04N.15W.04.423 C COX	343602108243001	006	GW	80-12-16	1310	120DTIL	—	—	7630.00
04N.16W.10.331A WILLIAMS	343457108302801	006	GW	80-12-17	0900	211MVRD	141.00	—	6860.00
04N.16W.10.331B WILLIAMS	343455108302801	006	GW	80-12-17	0900	211MVRD	—	—	6840.00
04N.17W.03.324B B GREEN	343627108361901	006	GW	80-10-14	1640	211MVRD	117.00	—	6820.00
04N.17W.04.233 MERL BELL	343612108371301	006	GW	80-10-13	1430	211MVRD	—	—	6808.00
04N.17W.08.121 MENDANOSO	343533108383701	006	GW	80-10-14	1045	211MVRD	190.00	225	6846.00
04N.18W.03.442 MEYERS	343552108421001	006	GW	80-10-31	1000	211MVRD	—	—	7300.00
04N.18W.05.144B	343643108444801	006	GW	80-11-18	1400	211MVRD	161.00	320	7339.00
05N.04W.05.142 U2 RANCH	344128107165501	006	GW	81-06-09	1100	211CRVC	580.00	—	7315.00
05N.05W.10.333A PIE RANC	344005107213301	006	GW	81-06-09	0914	231CHNL	—	—	6358.00
05N.05W.10.333B PIE RANC	344005107213302	006	GW	81-06-09	0914	231CHNL	140.00	—	6358.00
05N.05W.16.443 DAVY WM	343915107215301	006	GW	81-06-05	1200	231CHNL	76.30	—	6280.00
05N.06W.31.242 ORO WM	343710107300801	006	GW	81-06-10	1015	110AVMB	148.00	155	7025.00
05N.07W.34.433 VICTORINO	343632107333801	006	SP	81-05-20	1100	120DTILW	—	—	7000.00
05N.07W.35.334 VICTORINO	343642107325201	006	GW	81-05-20	1210	210MNCS	164.00	221	6165.00
05N.08W.11.214 DUNN WM	344046107384501	006	GW	81-06-10	1200	210MNCS	—	146	7270.00
05N.08W.32.111 BARELA WL	343723108423801	006	GW	81-03-03	1340	210MNCS	36.88	103	7430.00
05N.09W.26.412 GIBSON WM	343748107450701	006	GW	81-03-18	1230	211GLLP	160.75	201	7634.00
05N.10W.12.114 CEBOLLA S	344044107505601	006	SP	81-04-09	1250	—	—	—	—
05N.10W.27.234 WOODS # 2	343756107523301	006	GW	81-05-06	1000	211CRVC	43.66	130	7650.00
05N.10W.35.223 KING BROS	343714107511401	006	GW	81-04-28	1130	211CRVC	—	—	7582.00
05N.13W.18.113 JULIAN WM	343957108151601	006	GW	80-12-03	1330	211MVRD	201.47	—	7247.00
05N.14W.06.334 F GREEN	344101108212501	006	GW	80-12-18	1430	211MVRD	327.00	—	7397.00
05N.14W.15.334 F HUBBELL	343915108182201	006	GW	80-12-03	1200	211DKOT	—	—	7485.00
05N.15W.16.223 F HUBBELL	343953108250301	006	GW	80-12-03	1000	210MNCS	350.00	381	7365.00
05N.15W.19.444 TOWNER	343820108270001	006	GW	80-12-04	1200	211MVRD	87.00	100	7332.00
05N.15W.26.133 C COX	343755108233901	006	GW	80-12-16	1140	211MVRD	336.00	—	7392.00
05N.15W.28.431 C COX	343735108251801	006	GW	80-12-16	1530	211MVRD	261.00	500	7490.00
05N.15W.31.222A TOWNER	343723108272801	006	GW	80-12-04	1020	211MVRD	320.00	710	7425.00
05N.16W.19.141 B DYE	343852108340401	006	GW	80-11-19	1225	210MNCS	—	430	7298.00
05N.16W.21.242 BERT COX	343857108313801	006	GW	80-11-19	0920	211DKOT	—	800	7308.00
05N.16W.36.431	343648108282701	006	SP	80-12-17	1400	211MVRD	—	—	7200.00

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

CIBOLA COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE, INSTANTANEOUS (GPM) (00059)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)
04N.07W.07.111 NO. 7 WIN	81-05-13	288	298	3.5	--	--	18.5	1200	--	270
04N.09W.01.341 B MAJOR	81-03-17	--	--	.3	3300	7.6	12.0	700	--	170
04N.09W.09.131 B MAJOR	81-03-02	--	--	2.5	1600	7.5	12.0	400	--	110
04N.11W.06.111 HIGHLAND	81-04-27	10	271	2.5	425	7.5	14.0	18	--	5.9
04N.11W.08.124A TWIN WEL	81-04-29	--	--	2.0	1000	8.0	14.0	120	--	32
04N.11W.11.213 SCHOOL HO	81-05-05	--	195	2.0	1190	8.7	17.0	25	--	7.4
04N.12W.02.133 MALT WELL	81-04-27	15	96	1.5	1300	7.0	12.5	280	--	65
04N.12W.11.342 LOWLANDS	81-04-28	20	166	5.8	1000	7.6	13.5	68	--	17
04N.15W.04.423 C COX	80-12-16	--	--	12	350	8.3	15.5	120	0	33
04N.16W.10.331A WILLIAMS	80-12-17	--	280	1.6	533	8.1	--	76	0	22
04N.16W.10.331B WILLIAMS	80-12-17	--	230	1.0	846	7.7	11.0	150	0	43
04N.17W.03.324B B GREEN	80-10-14	--	--	2.5	1900	8.2	13.5	20	0	6.4
04N.17W.04.233 MERL BELL	80-10-13	--	--	1.3	1550	8.3	14.0	23	0	7.6
04N.17W.08.121 MENDANOSO	80-10-14	--	225	2.0	600	8.1	15.0	17	0	5.5
04N.18W.03.442 MEYERS	80-10-31	10	--	4.0	800	7.8	13.0	260	27	50
04N.18W.05.144B	80-11-18	60	320	5.0	350	7.6	14.0	150	0	47
05N.04W.05.142 U2 RANCH	81-06-09	--	630	5.0	2200	7.0	19.0	1500	--	360
05N.05W.10.333A PIE RANC	81-06-09	--	--	--	2400	7.4	18.5	1100	--	120
05N.05W.10.333B PIE RANC	81-06-09	--	251	6.0	3800	7.1	19.0	1600	--	400
05N.05W.16.443 DAVY WM	81-06-05	--	--	1.0	2400	7.3	17.0	1000	--	120
05N.06W.31.242 ORO WM	81-06-10	--	155	2.0	829	9.1	21.0	7	--	2.2
05N.07W.34.433 VICTORINO	81-05-20	--	--	.5	504	8.3	19.0	200	--	36
05N.07W.35.334 VICTORINO	81-05-20	--	221	3.0	450	7.6	15.0	180	--	38
05N.08W.11.214 DUNN WM	81-06-10	--	146	--	1500	7.6	17.0	540	--	120
05N.08W.32.111 BARELA WL	81-03-03	--	103	4.0	4500	7.3	12.5	2200	1900	490
05N.09W.26.412 GIBSON WM	81-03-18	--	201	3.0	1700	8.1	15.0	210	--	60
05N.10W.12.114 CEBOLLA S	81-04-09	--	--	--	227	7.5	14.0	87	--	30
05N.10W.27.234 WOODS # 2	81-05-06	E210	130	1.5	2150	7.5	12.5	500	--	150
05N.10W.35.223 KING BROS	81-04-28	--	--	1.5	1800	7.5	13.0	270	--	83
05N.13W.18.113 JULIAN WM	80-12-03	--	--	2.0	1150	8.8	15.5	8	0	2.2
05N.14W.06.334 F GREEN	80-12-18	15	--	8.5	406	8.2	14.0	110	0	27
05N.14W.15.334 F HUBBELL	80-12-03	--	--	3.0	450	7.9	17.0	120	0	31
05N.15W.16.223 F HUBBELL	80-12-03	10	381	16	290	8.2	15.0	91	0	24
05N.15W.19.444 TOWNER	80-12-04	--	100	3.0	1130	8.0	14.0	400	150	110
05N.15W.26.133 C COX	80-12-16	--	--	--	330	8.7	14.5	19	0	5.3
05N.15W.28.431 C COX	80-12-16	--	500	4.0	500	9.3	13.0	7	0	2.2
05N.15W.31.222A TOWNER	80-12-04	--	710	20	340	8.9	15.0	11	0	3.6
05N.16W.19.141 B DYE	80-11-19	--	430	<1.0	700	8.0	13.0	120	0	4.7
05N.16W.21.242 BERT COX	80-11-19	--	800	3.0	1000	8.4	13.0	7	0	2.3
05N.16W.36.431	80-12-17	--	--	--	1300	7.9	11.0	510	140	110

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY FIELD (MG/L AS CACO3) (00410)	ALKALINITY LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)
04N.07W.07.111 NO. 7 WIN	81-05-13	130	190	2.4	5.2	--	240	1300	17	.4
04N.09W.01.341 B MAJOR	81-03-17	67	500	8.2	5.7	--	260	1400	30	.3
04N.09W.09.131 B MAJOR	81-03-02	30	270	5.9	3.8	--	450	500	28	.6
04N.11W.06.111 HIGHLAND	81-04-27	.9	98	9.9	1.4	--	190	19	12	.8
04N.11W.08.124A TWIN WEL	81-04-29	9.1	200	8.0	1.9	--	280	220	39	1.1
04N.11W.11.213 SCHOOL HO	81-05-05	1.7	270	23	.9	--	460	140	18	4.2
04N.12W.02.133 MALT WELL	81-04-27	29	180	4.7	3.0	--	230	400	27	.9
04N.12W.11.342 LOWLANDS	81-04-28	6.2	210	11	2.5	--	380	75	21	3.0
04N.15W.04.423 C COX	80-12-16	8.8	40	1.6	1.9	--	180	16	7.0	.3
04N.16W.10.331A WILLIAMS	80-12-17	5.1	89	4.4	1.8	--	190	68	5.7	.7
04N.16W.10.331B WILLIAMS	80-12-17	11	120	4.2	2.3	--	200	200	9.5	.6
04N.17W.03.324B B GREEN	80-10-14	.9	380	37	2.3	--	270	520	8.9	1.4
04N.17W.04.233 MERL BELL	80-10-13	.9	330	30	1.4	190	--	530	14	.4
04N.17W.08.121 MENDANOSO	80-10-14	.7	120	13	1.3	230	--	44	10	.6
04N.18W.03.442 MEYERS	80-10-31	32	57	1.5	8.7	--	230	66	63	.6
04N.18W.05.144B	80-11-18	8.9	14	.5	.7	--	160	21	15	.7
05N.04W.05.142 U2 RANCH	81-06-09	150	21	.2	3.5	--	230	1300	18	.5
05N.05W.10.333A PIE RANC	81-06-09	200	230	3.0	8.9	--	640	890	25	.5
05N.05W.10.333B PIE RANC	81-06-09	140	450	4.9	22	--	490	1800	77	2.7
05N.05W.16.443 DAVY WM	81-06-05	180	230	3.1	5.5	--	650	740	18	.6

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

CIBOLA COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
05N.06W.31.242 ORO WM	81-06-10	.3	190	32	3.8	--	240	110	37	1.2
05N.07W.34.433 VICTORINO	81-05-20	26	26	.8	4.0	--	180	31	26	.7
05N.07W.35.334 VICTORINO	81-05-20	21	22	.7	2.9	--	180	19	18	.6
05N.08W.11.214 DUNN WM	81-06-10	59	140	2.6	5.1	--	220	610	22	.5
05N.08W.32.111 BARELA WL	81-03-03	230	440	4.1	5.3	--	310	2800	67	.2
05N.09W.26.412 GIBSON WM	81-03-18	14	340	10	2.5	--	260	640	8.2	.8
05N.10W.12.114 CEBOLLA S	81-04-09	2.9	11	.5	2.2	--	94	1.6	3.4	2.8
05N.10W.27.234 WOODS # 2	81-05-06	30	310	6.0	3.0	--	440	640	53	.6
05N.10W.35.223 KING BROS	81-04-28	16	370	9.7	3.6	--	330	620	38	.4
05N.13W.18.113 JULIAN WM	80-12-03	.5	260	41	2.7	--	490	94	7.1	1.7
05N.14W.06.334 F GREEN	80-12-18	9.9	48	2.0	3.7	--	160	25	14	.6
05N.14W.15.334 F HUBBELL	80-12-03	11	46	1.8	3.5	--	200	22	9.1	.4
05N.15W.16.223 F HUBBELL	80-12-03	7.5	42	1.9	4.0	--	160	18	9.0	.4
05N.15W.19.444 TOWNER	80-12-04	31	78	1.7	5.4	--	250	95	120	.4
05N.15W.26.133 C COX	80-12-16	1.3	87	8.8	1.3	--	170	17	4.2	.4
05N.15W.28.431 C COX	80-12-16	.3	140	23	1.2	--	280	2.9	9.0	3.1
05N.15W.31.222A TOWNER	80-12-04	.6	87	11	2.1	--	190	16	6.3	.5
05N.16W.19.141 B DYE	80-11-19	26	100	4.0	1.6	--	270	59	4.1	.8
05N.16W.21.242 BERT COX	80-11-19	.2	240	41	1.2	--	410	78	5.4	7.5
05N.16W.36.431	80-12-17	57	140	2.7	2.8	--	370	430	14	.4

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
04N.07W.07.111 NO. 7 WIN	81-05-13	18	--	2080	--	--	--	.03	--	--
04N.09W.01.341 B MAJOR	81-03-17	10	--	2340	--	--	--	.63	--	--
04N.09W.09.131 B MAJOR	81-03-02	13	--	1230	--	--	--	.00	--	--
04N.11W.06.111 HIGHLAND	81-04-27	15	--	281	--	--	--	3.1	--	--
04N.11W.08.124A TWIN WEL	81-04-29	11	--	685	--	--	--	.45	--	--
04N.11W.11.213 SCHOOL HO	81-05-05	8.8	--	729	--	--	--	.22	--	--
04N.12W.02.133 MALT WELL	81-04-27	16	--	864	--	--	--	.88	--	--
04N.12W.11.342 LOWLANDS	81-04-28	11	--	589	--	--	--	3.1	--	--
04N.15W.04.423 C COX	80-12-16	14	--	229	--	--	--	.00	--	--
04N.16W.10.331A WILLIAMS	80-12-17	14	--	321	--	--	--	.00	--	--
04N.16W.10.331B WILLIAMS	80-12-17	10	--	517	--	--	--	.03	--	--
04N.17W.03.324B B GREEN	80-10-14	8.6	--	1090	--	--	--	.22	--	--
04N.17W.04.233 MERL BELL	80-10-13	8.8	--	1010	--	--	--	.00	--	--
04N.17W.08.121 MENDANOSO	80-10-14	9.9	--	331	--	--	--	.00	--	--
04N.18W.03.442 MEYERS	80-10-31	25	--	459	--	--	--	4.2	--	--
04N.18W.05.144B	80-11-18	22	--	234	--	--	--	1.8	--	--
05N.04W.05.142 U2 RANCH	81-06-09	16	--	2010	--	--	--	.00	--	--
05N.05W.10.333A PIE RANC	81-06-09	11	--	1870	--	--	--	.00	--	--
05N.05W.10.333B PIE RANC	81-06-09	8.9	--	3200	--	--	--	.00	--	--
05N.05W.16.443 DAVY WM	81-06-05	6.6	--	1710	--	--	--	.00	1.20	--
05N.06W.31.242 ORO WM	81-06-10	20	--	510	--	--	--	.03	--	--
05N.07W.34.433 VICTORINO	81-05-20	23	--	292	--	--	--	2.5	--	--
05N.07W.35.334 VICTORINO	81-05-20	22	--	258	--	--	--	1.4	--	--
05N.08W.11.214 DUNN WM	81-06-10	11	--	1100	--	--	--	.11	--	--
05N.08W.32.111 BARELA WL	81-03-03	14	--	4230	--	--	--	.00	--	--
05N.09W.26.412 GIBSON WM	81-03-18	11	--	1230	--	--	--	.09	--	--
05N.10W.12.114 CEBOLLA S	81-04-09	13	137	124	.00	.060	--	.06	--	--
05N.10W.27.234 WOODS # 2	81-05-06	11	--	1470	--	--	--	.60	--	--
05N.10W.35.223 KING BROS	81-04-28	12	--	1340	--	--	--	.08	--	--
05N.13W.18.113 JULIAN WM	80-12-03	8.0	--	671	--	--	--	.02	--	--
05N.14W.06.334 F GREEN	80-12-18	16	--	243	--	--	--	.43	--	--
05N.14W.15.334 F HUBBELL	80-12-03	20	--	265	--	--	--	.39	--	--
05N.15W.16.223 F HUBBELL	80-12-03	17	--	218	--	--	--	.00	--	--
05N.15W.19.444 TOWNER	80-12-04	29	--	717	--	--	--	22	--	--
05N.15W.26.133 C COX	80-12-16	12	--	231	--	--	--	.01	--	--
05N.15W.28.431 C COX	80-12-16	1.9	--	329	--	--	--	.00	--	--
05N.15W.31.222A TOWNER	80-12-04	11	--	242	--	--	--	.00	--	--
05N.16W.19.141 B DYE	80-11-19	14	--	373	--	--	--	.04	--	--
05N.16W.21.242 BERT COX	80-11-19	8.8	--	591	--	--	--	.00	--	--
05N.16W.36.431	80-12-17	17	--	996	--	--	--	.40	--	--

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

CIBOLA COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
04N.07W.07.111 NO. 7 WIN	81-05-13	--	--	350	--	--	--	4400	--
04N.09W.01.341 B MAJOR	81-03-17	--	--	160	--	--	--	520	--
04N.09W.09.131 B MAJOR	81-03-02	--	--	120	--	--	--	1300	--
04N.11W.06.111 HIGHLAND	81-04-27	--	--	100	--	--	--	290	--
04N.11W.08.124A TWIN WEL	81-04-29	--	--	380	--	--	--	110	--
04N.11W.11.213 SCHOOL HO	81-05-05	--	--	310	--	--	--	70	--
04N.12W.02.133 MALT WELL	81-04-27	--	--	340	--	--	--	10	--
04N.12W.11.342 LOWLANDS	81-04-28	--	--	650	--	--	--	70	--
04N.15W.04.423 C COX	80-12-16	--	--	80	--	--	--	130	--
04N.16W.10.331A WILLIAMS	80-12-17	--	--	100	--	--	--	20	--
04N.16W.10.331B WILLIAMS	80-12-17	--	--	130	--	--	--	20	--
04N.17W.03.324B B GREEN	80-10-14	--	--	420	--	--	--	110	--
04N.17W.04.233 MERL BELL	80-10-13	--	--	400	--	--	--	80	--
04N.17W.08.121 MENDANOSO	80-10-14	--	--	120	--	--	--	1000	--
04N.18W.03.442 MEYERS	80-10-31	--	--	150	--	--	--	20	--
04N.18W.05.144B	80-11-18	--	--	70	--	--	--	10	--
05N.04W.05.142 U2 RANCH	81-06-09	--	--	110	--	--	--	6800	--
05N.05W.10.333A PIE RANC	81-06-09	--	--	320	--	--	--	2200	--
05N.05W.10.333B PIE RANC	81-06-09	--	--	780	--	--	--	7800	--
05N.05W.16.443 DAVY WM	81-06-05	--	--	370	--	--	--	22000	--
05N.06W.31.242 ORO WM	81-06-10	--	--	640	--	--	--	30	--
05N.07W.34.433 VICTORINO	81-05-20	--	--	70	--	--	--	<10	--
05N.07W.35.334 VICTORINO	81-05-20	--	--	50	--	--	--	90	--
05N.08W.11.214 DUNN WM	81-06-10	--	--	310	--	--	--	20	--
05N.08W.32.111 BARELA WL	81-03-03	--	--	200	--	--	--	1500	--
05N.09W.26.412 GIBSON WM	81-03-18	--	--	160	--	--	--	20	--
05N.10W.12.114 CEBOLLA S	81-04-09	3	80	30	1	10	1	10	2
05N.10W.27.234 WOODS # 2	81-05-06	--	--	100	--	--	--	290	--
05N.10W.35.223 KING BROS	81-04-28	--	--	90	--	--	--	390	--
05N.13W.18.113 JULIAN WM	80-12-03	--	--	350	--	--	--	50	--
05N.14W.06.334 F GREEN	80-12-18	--	--	180	--	--	--	120	--
05N.14W.15.334 F HUBBELL	80-12-03	--	--	70	--	--	--	20	--
05N.15W.16.223 F HUBBELL	80-12-03	--	--	80	--	--	--	50	--
05N.15W.19.444 TOWNER	80-12-04	--	--	50	--	--	--	30	--
05N.15W.26.133 C COX	80-12-16	--	--	90	--	--	--	390	--
05N.15W.28.431 C COX	80-12-16	--	--	440	--	--	--	30	--
05N.15W.31.222A TOWNER	80-12-04	--	--	150	--	--	--	20	--
05N.16W.19.141 B DYE	80-11-19	--	--	180	--	--	--	270	--
05N.16W.21.242 BERT COX	80-11-19	--	--	920	--	--	--	30	--
05N.16W.36.431	80-12-17	--	--	120	--	--	--	30	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
04N.07W.07.111 NO. 7 WIN	81-05-13	250	--	--	--
04N.09W.01.341 B MAJOR	81-03-17	360	--	--	--
04N.09W.09.131 B MAJOR	81-03-02	110	--	--	--
04N.11W.06.111 HIGHLAND	81-04-27	60	--	--	--
04N.11W.08.124A TWIN WEL	81-04-29	60	--	--	--
04N.11W.11.213 SCHOOL HO	81-05-05	8	--	--	--
04N.12W.02.133 MALT WELL	81-04-27	70	--	--	--
04N.12W.11.342 LOWLANDS	81-04-28	20	--	--	--
04N.15W.04.423 C COX	80-12-16	20	--	--	--
04N.16W.10.331A WILLIAMS	80-12-17	20	--	--	--
04N.16W.10.331B WILLIAMS	80-12-17	50	--	--	--
04N.17W.03.324B B GREEN	80-10-14	40	--	--	--
04N.17W.04.233 MERL BELL	80-10-13	10	--	--	--
04N.17W.08.121 MENDANOSO	80-10-14	10	--	--	--
04N.18W.03.442 MEYERS	80-10-31	20	--	--	--
04N.18W.05.144B	80-11-18	2	--	--	--
05N.04W.05.142 U2 RANCH	81-06-09	100	--	--	--
05N.05W.10.333A PIE RANC	81-06-09	180	--	--	--
05N.05W.10.333B PIE RANC	81-06-09	400	--	--	--
05N.05W.16.443 DAVY WM	81-06-05	280	--	--	--

CIBOLA COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
05N.06W.31.242 ORO WM	81-06-10	4	--	--	--
05N.07W.34.433 VICTORINO	81-05-20	2	--	--	--
05N.07W.35.334 VICTORINO	81-05-20	10	--	--	--
05N.08W.11.214 DUNN WM	81-06-10	30	--	--	--
05N.08W.32.111 BARELA WL	81-03-03	260	--	--	--
05N.09W.26.412 GIBSON WM	81-03-18	9	--	--	--
05N.10W.12.114 CEBOLLA S	81-04-09	10	.0	0	0
05N.10W.27.234 WOODS # 2	81-05-06	90	--	--	--
05N.10W.35.223 KING BROS	81-04-28	340	--	--	--
05N.13W.18.113 JULIAN WM	80-12-03	6	--	--	--
05N.14W.06.334 F GREEN	80-12-18	10	--	--	--
05N.14W.15.334 F HUBBELL	80-12-03	60	--	--	--
05N.15W.16.223 F HUBBELL	80-12-03	90	--	--	--
05N.15W.19.444 TOWNER	80-12-04	6	--	--	--
05N.15W.26.133 C COX	80-12-16	10	--	--	--
05N.15W.28.431 C COX	80-12-16	1	--	--	--
05N.15W.31.222A TOWNER	80-12-04	20	--	--	--
05N.16W.19.141 B DYE	80-11-19	30	--	--	--
05N.16W.21.242 BERT COX	80-11-19	5	--	--	--
05N.16W.36.431	80-12-17	590	--	--	--

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)
05N.17W.05.232 MONDAY	344128108385701	006	GW	80-11-13	1145	211MVRD	--	200	6970.00
05N.17W.05.444 BRUTON	344103108383801	006	GW	80-11-06	1220	211MVRD	134.08	420	6952.00
05N.17W.06.333 ALRED	344102108403701	006	GW	80-11-06	0840	211MVRD	--	184	6954.00
05N.17W.07.333 MCDUFF	344012108403401	006	GW	80-11-20	1530	211MVRD	--	225	7000.00
05N.17W.09.223 JACOBE	344049108373701	006	GW	80-11-06	1130	211MVRD	--	--	6982.00
05N.17W.10.344 J C BROWN	344007108370201	006	GW	80-11-20	1250	211MVRD	119.00	--	7025.00
05N.17W.13.132A W J HALL	343945108350801	006	GW	80-11-19	1530	211DKOT	--	700	7121.00
05N.17W.14.443 JC BROWN	343914108353501	006	GW	80-11-19	1315	211DKOT	--	750	7128.00
05N.17W.29.131 MERL BELL	343805108393001	006	GW	80-10-10	1000	211MVRD	347.00	365	7055.00
05N.17W.31.211 BERT COX	343817108401701	006	GW	80-10-20	1330	211GLLP	--	425	6968.00
05N.18W.01.233 R BOYETT	344125108401001	006	GW	80-11-05	0900	211MVRD	225.00	275	6922.00
05N.18W.08.223 J YATES	344052108450301	006	GW	80-11-12	1405	211MVRD	191.48	--	6974.00
05N.18W.10.342 R BOYETT	344012108431801	006	GW	80-11-05	0900	211MVRD	--	300	7035.00
05N.18W.12.212 R BOYETT	344052108405701	006	GW	80-11-05	0900	211MVRD	--	170	6972.00
05N.18W.13.222 BRUTON	344003108404401	006	GW	80-11-06	0940	211MVRD	--	180	7008.00
05N.18W.13.444 J PERALTA	343913108404501	006	GW	80-11-19	1600	210MNCS	--	600	7075.00
05N.18W.15.111 H BOGART	344004108344501	006	GW	80-12-02	1530	211MVRD	275.00	300	7074.00
05N.18W.15.444 H BOGART	343915108424301	006	GW	80-12-02	1600	211MVRD	175.00	200	7070.00
05N.18W.24.324 K THOMAS	343837108410801	006	GW	81-01-07	1400	211MVRD	--	--	7105.00
05N.19W.04.444B J YATES	344100108500301	006	GW	80-11-12	1220	211MVRD	--	--	6629.00
05N.19W.07.334 MAREZ SPR	343737108525201	006	SP	80-10-14	1300	211MVRD	--	--	6970.00
05N.20W.02.214 CANTARALO	344133108543201	006	GW	80-10-14	0920	211DKOT	393.93	600	6650.00
05N.21W.10.112B HEADQ WE	344052109023301	006	GW	80-10-01	1800	210MNCS	--	300	6600.00
06N.08W.34.333A MCCORD P	344147107403001	006	GW	81-05-21	1500	210MNCS	15.04	106	7255.00
06N.17W.13.342 JACKSON	344437108350301	006	GW	81-01-06	1450	211MVRD	164.86	--	7108.00
06N.17W.16.331	344433108382801	006	GW	80-11-13	1350	211MVRD	135.76	--	7028.00
06N.17W.19.131 MCDONALD	344308108403801	006	GW	80-11-14	0900	211MVRD	180.00	323	6930.00
06N.17W.20.442	344342108381201	006	GW	80-11-13	1300	211MVRD	--	--	6990.00
06N.17W.27.123 JACKSON	344324108371801	006	GW	81-01-06	1550	211MVRD	146.00	--	6952.00
06N.17W.30.111 SCHULTZ	344333108403901	006	GW	80-11-06	0915	211MVRD	--	240	6927.00
06N.17W.30.214	344323108395901	006	GW	80-11-13	1505	211MVRD	--	--	6955.00
06N.17W.30.311 G ALLEN	344300108403901	006	GW	80-11-07	0850	211MVRD	--	162	6962.00
06N.17W.31.313 C ALLEN	344207108403801	006	GW	80-11-20	0840	211MVRD	109.72	--	--
06N.17W.33.212 R ODELL	344237108313001	006	GW	80-11-21	1015	211MVRD	--	10	7196.00
06N.17W.34.433B D BRUTON	344158108365501	006	GW	80-11-06	1000	211MVRD	50.96	86	6890.00
06N.18W.10.232 RED WML	344552108430301	006	GW	80-10-29	1240	231CHNL	--	--	6901.00
06N.18W.27.433 E MALPAIS	344248108430401	006	GW	80-11-12	1010	111MCCR	--	--	6907.00
06N.18W.30.214 JARALOSA	344328108460901	006	SP	80-10-31	1030	111MCCR	--	--	6620.00
06N.19W.01.131 RAY WML	344649108475801	006	GW	80-11-06	1620	121BDHC	--	--	6771.00
06N.19W.13.413 W MALPAIS	344442108472001	006	GW	80-11-05	1110	111MCCR	--	--	6738.00

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

CIBOLA COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE, INSTAN-TANEOUS (GPM) (00059)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
05N.17W.05.232 MONDAY	80-11-13	--	200	2.0	450	9.1	15.0	9	0	2.6
05N.17W.05.444 BRUTON	80-11-06	--	420	12	525	9.3	15.0	5	0	1.6
05N.17W.06.333 ALRED	80-11-06	--	180	3.0	327	8.1	12.0	42	0	11
05N.17W.07.333 MCDUFF	80-11-20	--	225	--	350	7.3	14.0	140	14	41
05N.17W.09.223 JACOBE	80-11-06	--	--	--	465	8.1	14.0	47	0	14
05N.17W.10.344 J C BROWN	80-11-20	--	--	1.0	700	8.0	13.0	13	0	4.2
05N.17W.13.132A W J HALL	80-11-19	--	700	--	650	8.7	13.0	9	0	2.8
05N.17W.14.443 JC BROWN	80-11-19	--	750	2.0	650	8.7	16.0	4	0	1.3
05N.17W.29.131 MERL BELL	80-10-10	--	365	--	550	7.4	15.0	100	0	30
05N.17W.31.211 BERT COX	80-10-20	15	425	3.0	450	7.5	12.5	42	0	13
05N.18W.01.233 R BOYETT	80-11-05	--	275	6.0	350	9.3	15.0	11	0	3.4
05N.18W.08.223 J YATES	80-11-12	--	--	2.0	340	8.1	20.0	150	0	42
05N.18W.10.342 R BOYETT	80-11-05	--	300	6.0	414	7.2	15.0	160	0	47
05N.18W.12.212 R BOYETT	80-11-05	--	170	--	336	8.2	15.0	110	0	31
05N.18W.13.222 BRUTON	80-11-06	--	180	--	351	8.0	14.0	140	17	40
05N.18W.13.444 J PERALTA	80-11-19	--	600	4.0	950	8.3	14.0	12	0	3.7
05N.18W.15.111 H BOGART	80-12-02	--	300	1.0	456	7.8	17.0	200	40	62
05N.18W.15.444 H BOGART	80-12-02	10	200	2.5	532	7.8	13.0	120	0	32
05N.18W.24.324 K THOMAS	81-01-07	--	--	6.0	500	8.0	14.0	200	66	57
05N.19W.04.444B J YATES	80-11-12	--	--	1.3	500	9.1	17.0	6	0	1.9
05N.19W.07.334 MAREZ SPR	80-10-14	--	--	.1	371	7.0	13.0	160	0	50
05N.20W.02.214 CANTARALO	80-10-14	60	600	.6	825	8.1	17.5	10	0	2.9
05N.21W.10.112B HEADQ WE	80-10-01	120	300	12	500	7.8	15.0	170	34	50
06N.08W.34.333A MCCORD P	81-05-21	20	106	1.6	5000	7.3	10.5	2400	--	470
06N.17W.13.342 JACKSON	81-01-06	--	--	3.0	470	8.5	14.0	100	0	24
06N.17W.16.331	80-11-13	--	--	2.0	450	8.0	14.0	170	0	39
06N.17W.19.131 MCDONALD	80-11-14	--	323	8.0	350	8.2	13.0	43	0	12
06N.17W.20.442	80-11-13	--	--	3.0	400	8.2	14.5	140	0	33
06N.17W.27.123 JACKSON	81-01-06	--	--	1.3	1300	8.8	14.0	24	0	7.0
06N.17W.30.111 SCHULTZ	80-11-06	--	240	35	418	7.6	13.0	150	0	38
06N.17W.30.214	80-11-13	--	--	4.0	455	8.2	14.5	180	0	42
06N.17W.30.311 G ALLEN	80-11-07	--	--	--	380	8.1	15.0	140	0	32
06N.17W.31.313 C ALLEN	80-11-20	--	--	--	600	7.2	13.0	180	0	46
06N.17W.33.212 R ODELL	80-11-21	--	10	2.0	320	7.5	14.0	160	0	30
06N.17W.34.433B D BRUTON	80-11-06	--	86	12	1511	7.8	13.0	290	0	83
06N.18W.10.232 RED WML	80-10-29	--	--	.5	629	9.0	17.0	--	--	1.3
06N.18W.27.433 E MALPAIS	80-11-12	--	--	1.5	383	7.6	16.0	140	0	34
06N.18W.30.214 JARALOSA	80-10-31	--	--	--	421	7.8	14.5	150	0	37
06N.19W.01.131 RAY WML	80-11-06	--	--	1.3	520	8.1	17.0	81	0	26
06N.19W.13.413 W MALPAIS	80-11-05	--	--	1.0	930	8.4	20.0	53	0	17

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
05N.17W.05.232 MONDAY	80-11-13	.6	120	17	1.2	--	200	45	7.0	.9
05N.17W.05.444 BRUTON	80-11-06	.3	140	27	.9	--	250	49	4.7	.9
05N.17W.06.333 ALRED	80-11-06	3.6	56	3.7	2.1	140	--	19	5.4	.4
05N.17W.07.333 MCDUFF	80-11-20	10	16	.6	1.9	--	130	34	7.8	.8
05N.17W.09.223 JACOBE	80-11-06	2.9	110	7.0	2.3	--	220	43	5.2	.5
05N.17W.10.344 J C BROWN	80-11-20	.6	150	18	1.0	--	240	74	5.5	.6
05N.17W.13.132A W J HALL	80-11-19	.6	140	20	1.0	--	260	50	4.3	1.6
05N.17W.14.443 JC BROWN	80-11-19	.1	150	34	.5	--	280	34	2.5	1.1
05N.17W.29.131 MERL BELL	80-10-10	6.0	79	3.4	2.4	180	--	72	11	.7
05N.17W.31.211 BERT COX	80-10-20	2.4	80	5.4	2.2	--	190	22	7.6	.6
05N.18W.01.233 R BOYETT	80-11-05	.7	80	10	1.3	--	150	22	12	.5
05N.18W.08.223 J YATES	80-11-12	10	20	.7	1.3	--	150	19	16	.4
05N.18W.10.342 R BOYETT	80-11-05	10	22	.8	2.0	160	--	22	15	.4
05N.18W.12.212 R BOYETT	80-11-05	7.8	24	1.0	2.1	130	--	28	6.9	.5
05N.18W.13.222 BRUTON	80-11-06	9.0	15	.6	1.8	120	--	32	10	.6
05N.18W.13.444 J PERALTA	80-11-19	.6	230	29	1.2	--	300	170	33	3.7
05N.18W.15.111 H BOGART	80-12-02	11	16	.5	1.8	--	160	28	29	.5
05N.18W.15.444 H BOGART	80-12-02	9.3	67	2.7	2.5	--	220	42	10	.6
05N.18W.24.324 K THOMAS	81-01-07	13	15	.5	1.8	--	130	27	37	.5
05N.19W.04.444B J YATES	80-11-12	.2	130	24	.8	--	240	30	8.3	.5

CIBOLA COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
05N.19W.07.334 MAREZ SPR	80-10-14	8.4	8.8	.3	.8	160	--	9.9	13	.6
05N.20W.02.214 CANTARALO	80-10-14	.7	190	26	1.1	270	--	120	18	1.1
05N.21W.10.112B HEADQ WE	80-10-01	12	18	.6	2.1	140	--	24	24	.4
06N.08W.34.333A MCCORD P	81-05-21	300	420	3.7	2.5	--	430	2600	49	.1
06N.17W.13.342 JACKSON	81-01-06	10	56	2.4	3.8	--	180	39	7.6	.3
06N.17W.16.331	80-11-13	17	40	1.3	5.2	--	210	37	12	.3
06N.17W.19.131 MCDONALD	80-11-14	3.1	67	4.5	2.4	--	160	21	5.8	.3
06N.17W.20.442	80-11-13	15	34	1.2	5.1	--	180	27	9.0	.3
06N.17W.27.123 JACKSON	81-01-06	1.7	270	24	1.5	--	380	180	20	5.0
06N.17W.30.111 SCHULTZ	80-11-06	13	31	1.1	3.6	180	--	32	6.1	.2
06N.17W.30.214	80-11-13	19	30	1.0	4.9	--	200	34	12	.3
06N.17W.30.311 G ALLEN	80-11-07	14	31	1.2	5.5	--	180	35	5.8	.3
06N.17W.31.313 C ALLEN	80-11-20	15	48	1.6	2.7	--	240	41	7.1	.3
06N.17W.33.212 R ODELL	80-11-21	20	8.5	.3	4.1	--	170	.8	2.9	2.1
06N.17W.34.433B D BRUTON	80-11-06	19	230	5.9	3.2	370	--	380	23	.2
06N.18W.10.232 RED WML	80-10-29	<.0	150	--	2.4	--	280	35	11	.6
06N.18W.27.433 E MALPAIS	80-11-12	14	32	1.2	4.3	--	180	35	5.7	.3
06N.18W.30.214 JARALOSA	80-10-31	13	29	1.0	3.5	170	--	37	6.5	.4
06N.19W.01.131 RAY WML	80-11-06	3.9	100	4.8	6.5	--	210	71	12	.6
06N.19W.13.413 W MALPAIS	80-11-05	2.5	200	12	3.7	--	230	240	16	.3

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L ASP) (00671)
05N.17W.05.232 MONDAY	80-11-13	8.7	--	307	--	--	--	.00	--	--
05N.17W.05.444 BRUTON	80-11-06	9.5	--	357	--	--	--	.00	--	--
05N.17W.06.333 ALRED	80-11-06	16	--	199	--	--	--	.18	--	--
05N.17W.07.333 MCDUFF	80-11-20	24	--	219	--	--	--	1.1	--	--
05N.17W.09.223 JACOBE	80-11-06	14	--	327	--	--	--	.24	--	--
05N.17W.10.344 J C BROWN	80-11-20	9.4	--	390	--	--	--	.00	--	--
05N.17W.13.132A W J HALL	80-11-19	13	--	371	--	--	--	.09	--	--
05N.17W.14.443 JC BROWN	80-11-19	12	--	370	--	--	--	.05	--	--
05N.17W.29.131 MERL BELL	80-10-10	13	--	323	--	--	--	.00	--	--
05N.17W.31.211 BERT COX	80-10-20	13	--	256	--	--	--	.00	--	--
05N.18W.01.233 R BOYETT	80-11-05	8.2	--	220	--	--	--	.37	--	--
05N.18W.08.223 J YATES	80-11-12	23	--	238	--	--	--	3.6	--	--
05N.18W.10.342 R BOYETT	80-11-05	22	--	242	--	--	--	1.2	--	--
05N.18W.12.212 R BOYETT	80-11-05	22	--	204	--	--	--	.75	--	--
05N.18W.13.222 BRUTON	80-11-06	25	--	212	--	--	--	1.5	--	--
05N.18W.13.444 J PERALTA	80-11-19	9.4	--	633	--	--	--	.00	--	--
05N.18W.15.111 H BOGART	80-12-02	21	--	275	--	--	--	2.1	--	--
05N.18W.15.444 H BOGART	80-12-02	13	--	311	--	--	--	.38	--	--
05N.18W.24.324 K THOMAS	81-01-07	22	--	270	--	--	--	4.2	--	--
05N.19W.04.444B J YATES	80-11-12	9.1	--	326	--	--	--	.09	--	--
05N.19W.07.334 MAREZ SPR	80-10-14	27	--	219	--	--	--	.92	--	--
05N.20W.02.214 CANTARALO	80-10-14	9.8	--	507	--	--	--	.15	--	--
05N.21W.10.112B HEADQ WE	80-10-01	18	--	265	--	--	--	7.3	--	--
06N.08W.34.333A MCCORD P	81-05-21	8.0	--	4120	--	--	--	.59	--	--
06N.17W.13.342 JACKSON	81-01-06	32	--	282	--	--	.24	.23	--	--
06N.17W.16.331	80-11-13	34	--	313	--	--	--	.55	--	--
06N.17W.19.131 MCDONALD	80-11-14	13	--	221	--	--	--	.09	--	--
06N.17W.20.442	80-11-13	35	--	272	--	--	--	1.2	--	--
06N.17W.27.123 JACKSON	81-01-06	8.1	--	729	--	--	--	1.5	--	--
06N.17W.30.111 SCHULTZ	80-11-06	27	--	260	--	--	--	.17	--	--
06N.17W.30.214	80-11-13	34	--	300	--	--	--	.78	--	--
06N.17W.30.311 G ALLEN	80-11-07	36	--	270	--	--	--	.47	--	--
06N.17W.31.313 C ALLEN	80-11-20	20	--	325	--	--	--	.10	--	--
06N.17W.33.212 R ODELL	80-11-21	13	--	184	--	--	--	.01	--	--
06N.17W.34.433B D BRUTON	80-11-06	15	--	985	--	--	--	2.0	--	--
06N.18W.10.232 RED WML	80-10-29	12	--	--	--	--	--	.00	--	--
06N.18W.27.433 E MALPAIS	80-11-12	37	--	273	--	--	--	.60	--	--
06N.18W.30.214 JARALOSA	80-10-31	38	--	268	--	--	--	.26	--	--
06N.19W.01.131 RAY WML	80-11-06	10	--	361	--	--	--	.96	--	--
06N.19W.13.413 W MALPAIS	80-11-05	18	--	642	--	--	--	1.3	--	--

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

CIBOLA COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
05N.17W.05.232 MONDAY	80-11-13	--	--	310	--	--	--	30	--
05N.17W.05.444 BRUTON	80-11-06	--	--	190	--	--	--	30	--
05N.17W.06.333 ALRED	80-11-06	--	--	70	--	--	--	150	--
05N.17W.07.333 MCDUFF	80-11-20	--	--	--	--	--	--	<10	--
05N.17W.09.223 JACOBE	80-11-06	--	--	140	--	--	--	1800	--
05N.17W.10.344 J C BROWN	80-11-20	--	--	260	--	--	--	20	--
05N.17W.13.132A W J HALL	80-11-19	--	--	500	--	--	--	420	--
05N.17W.14.443 JC BROWN	80-11-19	--	--	320	--	--	--	<10	--
05N.17W.29.131 MERL BELL	80-10-10	--	--	160	--	--	--	60	--
05N.17W.31.211 BERT COX	80-10-20	--	--	110	--	--	--	280	--
05N.18W.01.233 R BOYETT	80-11-05	--	--	140	--	--	--	210	--
05N.18W.08.223 J YATES	80-11-12	--	--	50	--	--	--	20	--
05N.18W.10.342 R BOYETT	80-11-05	--	--	50	--	--	--	30	--
05N.18W.12.212 R BOYETT	80-11-05	--	--	40	--	--	--	<10	--
05N.18W.13.222 BRUTON	80-11-06	--	--	30	--	--	--	10	--
05N.18W.13.444 J PERALTA	80-11-19	0	30	620	<1	0	2	100	0
05N.18W.15.111 H BOGART	80-12-02	--	--	180	--	--	--	<10	--
05N.18W.15.444 H BOGART	80-12-02	--	--	170	--	--	--	50	--
05N.18W.24.324 K THOMAS	81-01-07	--	--	20	--	--	--	50	--
05N.19W.04.444B J YATES	80-11-12	--	--	130	--	--	--	220	--
05N.19W.07.334 MAREZ SPR	80-10-14	--	--	50	--	--	--	<10	--
05N.20W.02.214 CANTARALO	80-10-14	--	--	290	--	--	--	460	--
05N.21W.10.112B HEADQ WE	80-10-01	--	--	50	--	--	--	10	--
06N.08W.34.333A MCCORD P	81-05-21	--	--	130	--	--	--	8400	--
06N.17W.13.342 JACKSON	81-01-06	--	--	50	--	--	--	70	--
06N.17W.16.331	80-11-13	--	--	40	--	--	--	30	--
06N.17W.19.131 MCDONALD	80-11-14	--	--	90	--	--	--	110	--
06N.17W.20.442	80-11-13	--	--	40	--	--	--	70	--
06N.17W.27.123 JACKSON	81-01-06	--	--	540	--	--	--	130	--
06N.17W.30.111 SCHULTZ	80-11-06	--	--	60	--	--	--	400	--
06N.17W.30.214	80-11-13	--	--	40	--	--	--	40	--
06N.17W.30.311 G ALLEN	80-11-07	--	--	60	--	--	--	10	--
06N.17W.31.313 C ALLEN	80-11-20	--	--	110	--	--	--	70	--
06N.17W.33.212 R ODELL	80-11-21	--	--	130	--	--	--	40	--
06N.17W.34.433B D BRUTON	80-11-06	--	--	560	--	--	--	<10	--
06N.18W.10.232 RED WML	80-10-29	--	--	200	--	--	--	410	--
06N.18W.27.433 E MALPAIS	80-11-12	--	--	50	--	--	--	30	--
06N.18W.30.214 JARALOSA	80-10-31	--	--	40	--	--	--	10	--
06N.19W.01.131 RAY WML	80-11-06	--	--	140	--	--	--	70	--
06N.19W.13.413 W MALPAIS	80-11-05	--	--	260	--	--	--	140	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
05N.17W.05.232 MONDAY	80-11-13	1	--	--	--
05N.17W.05.444 BRUTON	80-11-06	3	--	--	--
05N.17W.06.333 ALRED	80-11-06	1	--	--	--
05N.17W.07.333 MCDUFF	80-11-20	<1	--	--	--
05N.17W.09.223 JACOBE	80-11-06	20	--	--	--
05N.17W.10.344 J C BROWN	80-11-20	7	--	--	--
05N.17W.13.132A W J HALL	80-11-19	3	--	--	--
05N.17W.14.443 JC BROWN	80-11-19	<1	--	--	--
05N.17W.29.131 MERL BELL	80-10-10	70	--	--	--
05N.17W.31.211 BERT COX	80-10-20	330	--	--	--
05N.18W.01.233 R BOYETT	80-11-05	5	--	--	--
05N.18W.08.223 J YATES	80-11-12	6	--	--	--
05N.18W.10.342 R BOYETT	80-11-05	10	--	--	--
05N.18W.12.212 R BOYETT	80-11-05	1	--	--	--
05N.18W.13.222 BRUTON	80-11-06	<1	--	--	--
05N.18W.13.444 J PERALTA	80-11-19	4	.0	0	0
05N.18W.15.111 H BOGART	80-12-02	6	--	--	--
05N.18W.15.444 H BOGART	80-12-02	10	--	--	--
05N.18W.24.324 K THOMAS	81-01-07	30	--	--	--
05N.19W.04.444B J YATES	80-11-12	3	--	--	--
05N.19W.07.334 MAREZ SPR	80-10-14	<1	--	--	--
05N.20W.02.214 CANTARALO	80-10-14	6	--	--	--
05N.21W.10.112B HEADQ WE	80-10-01	2	--	--	--
06N.08W.34.333A MCCORD P	81-05-21	600	--	--	--
06N.17W.13.342 JACKSON	81-01-06	4	--	--	--

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

CIBOLA COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
06N.17W.16.331	80-11-13	<1	--	--	--
06N.17W.19.131 MCDONALD	80-11-14	30	--	--	--
06N.17W.20.442	80-11-13	<1	--	--	--
06N.17W.27.123 JACKSON	81-01-06	6	--	--	--
06N.17W.30.111 SCHULTZ	80-11-06	20	--	--	--
06N.17W.30.214	80-11-13	<1	--	--	--
06N.17W.30.311 G ALLEN	80-11-07	3	--	--	--
06N.17W.31.313 C ALLEN	80-11-20	2	--	--	--
06N.17W.33.212 R ODELL	80-11-21	1	--	--	--
06N.17W.34.433B D BRUTON	80-11-06	30	--	--	--
06N.18W.10.232 RED WML	80-10-29	9	--	--	--
06N.18W.27.433 E MALPAIS	80-11-12	1	--	--	--
06N.18W.30.214 JARALOSA	80-10-31	3	--	--	--
06N.19W.01.131 RAY WML	80-11-06	3	--	--	--
06N.19W.13.413 W MALPAIS	80-11-05	7	--	--	--

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)
06N.19W.16.113 CARTER WM	344512108510001	006	GW	80-10-29	1635	111MCCR	--	--	6609.00
06N.19W.24.311 ROCK HOUS	344358108475001	006	GW	80-11-05	1300	211MVRD	--	--	6521.00
06N.19W.24.421 CROW WML	344400108470601	006	GW	80-11-05	1200	211MVRD	--	--	6674.00
06N.19W.29.231 JARALOSA	344313108513001	006	GW	80-11-11	1430	210MNCS	--	252	6490.00
06N.20W.04.233 MAZON WEL	344641108565301	006	GW	80-10-15	1530	211DKOT	--	--	6250.00
06N.20W.10.213 PADILLA W	344603108554801	006	GW	80-10-01	1325	110AVMB	93.37	--	--
06N.20W.31.132 LEN COOK	344225108591501	006	GW	80-10-21	1000	211MVRD	338.00	355	6760.00
07N.04W.13.114 B MAJOR	345013107125201	006	GW	81-05-19	1315	110AVMB	86.00	107	5850.00
07N.04W.15.222 B MAJOR	345028107141901	006	GW	81-05-19	1435	110AVMB	39.12	44	5826.00
07N.04W.25.111 RED WMLL	344845107130801	006	GW	81-05-19	1030	231CHNL	126.00	150	5981.00
07N.04W.29.421	344813107163701	006	GW	81-06-09	1400	110AVMB	130.35	--	6155.00
07N.05W.06.221A ROMERO P	345210107235701	006	GW	81-03-26	1600	231CHNL	--	--	5757.00
07N.06W.10.443 B MARMON	345034107270801	006	GW	81-03-26	1430	231CHNL	71.50	75	5852.00
07N.06W.18.424 F MARMON	344953107300801	006	GW	81-03-26	1415	231CHNL	47.87	--	5940.00
07N.06W.22.331 ALBERTS H	344858107275301	006	GW	81-03-26	1400	231CHNL	92.99	97	5822.00
07N.11W.02.311 EAST WM	345150107582301	006	GW	81-04-29	1620	231CHNL	--	420	7070.00
07N.16W.06.314 GRIEGO	345137108341401	006	GW	81-01-06	1150	211DKOT	--	665	7090.00
07N.17W.16.221 E JOE WML	345020108374501	006	GW	80-11-04	1330	211DKOT	--	--	6930.00
07N.17W.30.121 HIGHWAY	344847108402101	006	GW	80-10-29	1000	210DKOT	--	--	6882.00
07N.18W.09.323 °PINE WML	345048108443301	006	GW	80-11-04	--	231SNSL	--	1400	6969.00
		006	GW	80-11-04	1500	231SNSL	--	--	--
07N.18W.11.234 TRUJILLO	345102108420501	006	GW	80-10-29	1500	221ZUNIS	--	--	6908.00
07N.18W.26.442 ROAD WML	344806108414501	006	GW	80-10-29	1230	220GLNC	--	--	6842.00
07N.18W.29.311 SOLOMON W	344820108454901	006	GW	80-10-30	1620	231CHNL	--	--	6864.00
07N.19W.02.344 CHALK WML	345108108483801	006	GW	80-10-30	1450	231CHNL	--	--	6898.00
07N.19W.08.333 FRANCISCA	345042108520801	006	GW	80-11-06	1420	231CHNL	--	--	6616.00
07N.19W.12.142 DEEP WML	345108108473701	006	GW	80-10-30	1515	231SNSL	--	--	7128.00
07N.19W.15.131 DENT WML	345017108500001	006	GW	80-11-06	1505	231CHNL	--	640	6897.00
07N.19W.31.411 VENADITO	344742108523501	006	GW	80-11-11	1140	221ZUNIS	--	271	6504.00
07N.19W.33.423 NEW WML	344752108501701	006	GW	80-11-05	1645	231CHNL	--	--	6700.00
07N.20W.10.311 HARKER	345055108562001	006	GW	80-10-21	1415	110AVMB	59.72	--	6380.00
07N.20W.14.212A HARKER	345028108544002	006	GW	80-10-21	1825	231CHNL	239.25	--	6410.00
07N.20W.14.213 HARKER	345028108544001	006	GW	80-10-02	1400	211MVRD	88.16	103	6415.00
07N.20W.26.334 VENADITO	344757108550601	006	GW	80-10-21	1745	231CHNL	179.00	--	6350.00
07N.21W.10.332 BOB WELL	345038109023201	006	GW	80-10-01	1600	110AVMB	--	100	6073.00
07N.21W.36.222 36 WELL	344749108594001	006	GW	80-10-15	1420	110AVMB	79.82	--	6165.00
08N.12W.19.334 MAJOR	345403108085001	006	GW	81-05-06	0830	231CHNL	430.00	600	7500.00
08N.16W.22.342 C KITCH R	345410108304801	006	GW	81-01-08	0920	211MVRD	--	265	7235.00
08N.17W.30.332	345320108402301	006	GW	80-12-04	1630	231CHNL	--	1200	7110.00
08N.19W.36.313 MONTANO	345233108475801	006	GW	81-02-10	1300	231WNGT	68.00	200	6872.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

CIBOLA COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE, INSTAN-TANEOUS (GPM) (00059)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
06N.19W.16.113 CARTER WM	80-10-29	--	--	1.0	655	8.0	14.0	220	10	60
06N.19W.24.311 ROCK HOUS	80-11-05	--	--	.3	2200	7.8	15.0	1300	1100	370
06N.19W.24.421 CROW WML	80-11-05	--	--	1.0	480	8.2	15.0	190	19	46
06N.19W.29.231 JARALOSA	80-11-11	--	--	2.0	2200	8.0	17.0	460	250	120
06N.20W.04.233 MAZON WEL	80-10-15	--	--	6.0	2566	7.0	14.0	830	400	230
06N.20W.10.213 PADILLA W	80-10-01	--	--	4.0	2129	7.1	15.5	690	280	190
06N.20W.31.132 LEN COOK	80-10-21	--	355	--	1800	8.8	14.4	55	0	16
07N.04W.13.114 B MAJOR	81-05-19	--	107	2.0	826	7.8	16.0	380	--	96
07N.04W.15.222 B MAJOR	81-05-19	--	44	2.0	3100	--	17.0	2000	--	590
07N.04W.25.111 RED WMLL	81-05-19	--	150	2.0	3010	6.9	16.0	1600	--	390
07N.04W.29.421	81-06-09	--	--	3.0	679	8.0	19.0	150	--	17
07N.05W.06.221A ROMERO P	81-03-26	--	--	4.0	1500	9.1	20.0	11	--	3.4
07N.06W.10.443 B MARMON	81-03-26	--	75	1.0	1200	8.6	17.0	23	--	5.6
07N.06W.18.424 F MARMON	81-03-26	--	--	4.0	950	8.4	15.0	38	--	8.1
07N.06W.22.331 ALBERTS H	81-03-26	--	97	1.0	2300	8.7	19.0	18	--	6.2
07N.11W.02.311 EAST WM	81-04-29	--	420	1.0	160	8.4	17.0	49	--	14
07N.16W.06.314 GRIEGO	81-01-06	--	665	4.0	1400	8.8	15.0	17	0	5.0
07N.17W.16.221 E JOE WML	80-11-04	--	--	2.0	1300	7.8	15.0	500	210	110
07N.17W.30.121 HIGHWAY	80-10-29	--	--	E7.0	624	9.0	12.0	6	0	1.9
07N.18W.09.323 PINE WML	80-11-04	--	1400	1.0	900	9.3	19.0	--	--	--
	80-11-04	--	--	1.2	900	9.2	19.0	6	--	2.1
07N.18W.11.234 TRUJILLO	80-10-29	--	--	.3	701	7.8	17.0	280	40	74
07N.18W.26.442 ROAD WML	80-10-29	--	--	1.5	697	8.6	14.0	8	0	2.7
07N.18W.29.311 SOLOMON W	80-10-30	--	--	3.0	600	9.2	20.0	4	0	1.6
07N.19W.02.344 CHALK WML	80-10-30	--	--	1.3	690	8.3	19.0	6	0	2.0
07N.19W.08.333 FRANCISCA	80-11-06	--	--	2.0	1178	7.4	14.0	530	230	150
07N.19W.12.142 DEEP WML	80-10-30	--	--	.5	950	9.1	16.0	9	0	3.3
07N.19W.15.131 DENT WML	80-11-06	--	640	1.5	1100	7.3	24.0	510	210	140
07N.19W.31.411 VENADITO	80-11-11	--	271	1.3	750	7.6	16.0	260	0	73
07N.19W.33.423 NEW WML	80-11-05	--	--	.5	1000	7.2	18.0	480	200	130
07N.20W.10.311 HARKER	80-10-21	5	--	1.0	437	7.4	16.0	200	0	67
07N.20W.14.212A HARKER	80-10-21	E15	--	1.0	476	7.5	14.5	61	0	18
07N.20W.14.213 HARKER	80-10-02	--	--	1.0	500	7.6	15.5	190	0	60
07N.20W.26.334 VENADITO	80-10-21	10	--	2.0	1150	7.2	16.0	380	59	94
07N.21W.10.332 BOB WELL	80-10-01	--	100	5.0	1650	6.9	15.5	600	410	160
07N.21W.36.222 36 WELL	80-10-15	--	--	4.0	1292	7.5	12.0	530	250	140
08N.12W.19.334 MAJOR	81-05-06	--	600	4.0	270	8.3	15.0	44	0	11
08N.16W.22.342 C KITCH R	81-01-08	--	--	10	900	9.5	15.0	6	0	1.9
08N.17W.30.332	80-12-04	--	1200	--	800	7.8	7.0	130	0	37
08N.19W.36.313 MONTANO	81-02-10	10	200	3.0	553	7.7	--	210	71	68

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
06N.19W.16.113 CARTER WM	80-10-29	17	47	1.4	4.0	210	--	78	30	.5
06N.19W.24.311 ROCK HOUS	80-11-05	100	130	1.5	6.0	--	200	1300	16	.6
06N.19W.24.421 CROW WML	80-11-05	18	23	.7	5.0	170	--	62	7.0	.3
06N.19W.29.231 JARALOSA	80-11-11	39	410	8.3	5.3	--	210	1000	18	.7
06N.20W.04.233 MAZON WEL	80-10-15	62	330	5.0	5.6	430	--	1100	19	.5
06N.20W.10.213 PADILLA W	80-10-01	53	250	4.1	6.2	410	--	810	12	.5
06N.20W.31.132 LEN COOK	80-10-21	3.6	390	23	12	--	170	670	47	.7
07N.04W.13.114 B MAJOR	81-05-19	33	25	.6	5.6	--	270	100	13	.9
07N.04W.15.222 B MAJOR	81-05-19	130	150	1.5	11	--	280	1800	130	1.1
07N.04W.25.111 RED WMLL	81-05-19	160	140	1.5	6.5	--	410	1200	140	1.0
07N.04W.29.421	81-06-09	26	98	3.5	3.2	--	210	110	22	.8
07N.05W.06.221A ROMERO P	81-03-26	.7	390	50	.3	--	630	140	53	1.8
07N.06W.10.443 B MARMON	81-03-26	2.3	310	28	.3	--	560	80	17	1.8
07N.06W.18.424 F MARMON	81-03-26	4.4	240	17	.3	--	450	61	11	1.5
07N.06W.22.331 ALBERTS H	81-03-26	.5	560	58	.4	--	230	730	150	.6
07N.11W.02.311 EAST WM	81-04-29	3.4	21	1.3	1.5	--	75	8.5	.8	1.5
07N.16W.06.314 GRIEGO	81-01-06	1.2	310	32	1.5	--	330	250	57	4.4
07N.17W.16.221 E JOE WML	80-11-04	54	160	3.1	1.8	--	290	500	6.1	.8
07N.17W.30.121 HIGHWAY	80-10-29	.2	150	28	.7	260	--	50	8.2	1.2
07N.18W.09.323 PINE WML	80-11-04	--	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

CIBOLA COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
	80-11-04	.3	210	36	1.4	280	--	180	15	1.3
07N.18W.11.234 TRUJILLO	80-10-29	23	44	1.1	12	240	--	130	4.2	.3
07N.18W.26.442 ROAD WML	80-10-29	.4	160	24	.6	220	--	77	32	1.0
07N.18W.29.311 SOLOMON W	80-10-30	.1	160	33	1.6	--	230	81	13	.6
07N.19W.02.344 CHALK WML	80-10-30	.3	140	24	6.1	--	270	30	12	.4
07N.19W.08.333 FRANCISCA	80-11-06	38	57	1.1	6.8	300	--	270	41	.6
07N.19W.12.142 DEEP WML	80-10-30	.2	230	33	1.1	--	200	260	19	2.2
07N.19W.15.131 DENT WML	80-11-06	39	53	1.0	6.3	--	300	290	39	.6
07N.19W.31.411 VENADITO	80-11-11	18	89	2.4	3.4	--	260	180	11	.4
07N.19W.33.423 NEW WML	80-11-05	38	54	1.1	6.9	--	280	260	45	.6
07N.20W.10.311 HARKER	80-10-21	8.0	14	.4	2.5	210	--	23	2.9	.4
07N.20W.14.212A HARKER	80-10-21	3.8	80	4.5	2.0	160	--	59	7.8	.3
07N.20W.14.213 HARKER	80-10-02	10	46	1.4	4.5	--	280	1.7	8.2	.2
07N.20W.26.334 VENADITO	80-10-21	35	110	2.5	4.1	320	--	290	14	.5
07N.21W.10.332 BOB WELL	80-10-01	49	130	2.3	5.1	--	190	650	12	.3
07N.21W.36.222 36 WELL	80-10-15	43	82	1.6	2.2	280	--	420	9.2	.6
08N.12W.19.334 MAJOR	81-05-06	3.9	43	2.8	3.3	--	100	14	9.0	.2
08N.16W.22.342 C KITCH R	81-01-08	.3	210	37	.7	--	--	160	6.6	1.9
08N.17W.30.332	80-12-04	9.4	160	6.1	2.5	--	230	230	6.7	.6
08N.19W.36.313 MONTANO	81-02-10	10	25	.8	2.3	--	140	23	54	.2

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
06N.19W.16.113 CARTER WM	80-10-29	28	--	404	--	--	--	3.0	--	--
06N.19W.24.311 ROCK HOUS	80-11-05	12	--	2060	--	--	--	.01	--	--
06N.19W.24.421 CROW WML	80-11-05	27	--	297	--	--	--	1.4	--	--
06N.19W.29.231 JARALOSA	80-11-11	9.8	--	1740	--	--	--	3.0	--	--
06N.20W.04.233 MAZON WEL	80-10-15	17	--	2030	--	--	--	.00	--	--
06N.20W.10.213 PADILLA W	80-10-01	17	--	1590	--	--	--	.00	--	--
06N.20W.31.132 LEN COOK	80-10-21	5.7	--	1250	--	--	--	.00	--	--
07N.04W.13.114 B MAJOR	81-05-19	15	--	509	--	--	--	13	--	--
07N.04W.15.222 B MAJOR	81-05-19	20	--	3000	--	--	--	.00	--	--
07N.04W.25.111 RED WMLL	81-05-19	17	--	2310	--	--	--	2.0	--	--
07N.04W.29.421	81-06-09	19	--	423	--	--	--	.11	--	--
07N.05W.06.221A ROMERO P	81-03-26	8.5	--	981	--	--	--	.74	--	--
07N.06W.10.443 B MARMON	81-03-26	13	--	776	--	--	--	1.8	--	--
07N.06W.18.424 F MARMON	81-03-26	14	--	634	--	--	--	5.0	--	--
07N.06W.22.331 ALBERTS H	81-03-26	9.9	--	1600	--	--	--	.19	--	--
07N.11W.02.311 EAST WM	81-04-29	30	--	130	--	--	--	.83	--	--
07N.16W.06.314 GRIEGO	81-01-06	6.7	--	835	--	--	.15	.10	--	--
07N.17W.16.221 E JOE WML	80-11-04	11	--	1020	--	--	--	.03	--	--
07N.17W.30.121 HIGHWAY	80-10-29	9.8	--	379	--	--	--	.00	--	--
07N.18W.09.323 PINE WML	80-11-04	--	--	--	--	--	--	--	--	--
	80-11-04	11	--	590	--	--	--	.00	--	--
07N.18W.11.234 TRUJILLO	80-10-29	12	--	446	--	--	--	.00	--	--
07N.18W.26.442 ROAD WML	80-10-29	5.6	--	412	--	--	--	.00	--	--
07N.18W.29.311 SOLOMON W	80-10-30	9.1	--	406	--	--	--	.00	--	--
07N.19W.02.344 CHALK WML	80-10-30	10	--	367	--	--	--	.82	--	--
07N.19W.08.333 FRANCISCA	80-11-06	17	--	764	--	--	--	.08	--	--
07N.19W.12.142 DEEP WML	80-10-30	9.9	--	647	--	--	--	.00	--	--
07N.19W.15.131 DENT WML	80-11-06	16	--	770	--	--	--	.25	--	--
07N.19W.31.411 VENADITO	80-11-11	16	--	549	--	--	--	.50	--	--
07N.19W.33.423 NEW WML	80-11-05	16	--	727	--	--	--	.00	--	--
07N.20W.10.311 HARKER	80-10-21	16	--	261	--	--	--	.00	--	--
07N.20W.14.212A HARKER	80-10-21	10	--	302	--	--	--	5.6	--	--
07N.20W.14.213 HARKER	80-10-02	10	--	310	--	--	--	.02	--	--
07N.20W.26.334 VENADITO	80-10-21	16	--	761	--	--	--	.00	--	--
07N.21W.10.332 BOB WELL	80-10-01	12	--	1140	--	--	--	.74	--	--
07N.21W.36.222 36 WELL	80-10-15	17	--	886	--	--	--	.55	--	--
08N.12W.19.334 MAJOR	81-05-06	27	--	180	--	--	--	1.9	--	--
08N.16W.22.342 C KITCH R	81-01-08	7.7	--	552	--	--	--	.04	--	--
08N.17W.30.332	80-12-04	11	--	596	--	--	--	.00	--	--
08N.19W.36.313 MONTANO	81-02-10	16	--	304	--	--	--	4.7	--	--

CIBOLA COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
06N.19W.16.113 CARTER WM	80-10-29	--	--	120	--	--	--	30	--
06N.19W.24.311 ROCK HOUS	80-11-05	--	--	300	--	--	--	120	--
06N.19W.24.421 CROW WML	80-11-05	--	--	80	--	--	--	10	--
06N.19W.29.231 JARALOSA	80-11-11	--	--	440	--	--	--	40	--
06N.20W.04.233 MAZON WEL	80-10-15	--	--	240	--	--	--	5100	--
06N.20W.10.213 PADILLA W	80-10-01	--	--	170	--	--	--	3700	--
06N.20W.31.132 LEN COOK	80-10-21	--	--	970	--	--	--	160	--
07N.04W.13.114 B MAJOR	81-05-19	--	--	160	--	--	--	70	--
07N.04W.15.222 B MAJOR	81-05-19	--	--	510	--	--	--	2800	--
07N.04W.25.111 RED WMLL	81-05-19	--	--	510	--	--	--	470	--
07N.04W.29.421	81-06-09	--	--	390	--	--	--	50	--
07N.05W.06.221A ROMERO P	81-03-26	--	--	1200	--	--	--	90	--
07N.06W.10.443 B MARMON	81-03-26	--	--	1200	--	--	--	80	--
07N.06W.18.424 F MARMON	81-03-26	--	--	1000	--	--	--	20	--
07N.06W.22.331 ALBERTS H	81-03-26	--	--	610	--	--	--	360	--
07N.11W.02.311 EAST WM	81-04-29	--	--	10	--	--	--	130	--
07N.16W.06.314 GRIEGO	81-01-06	--	--	560	--	--	--	50	--
07N.17W.16.221 E JOE WML	80-11-04	--	--	260	--	--	--	2100	--
07N.17W.30.121 HIGHWAY	80-10-29	--	--	370	--	--	--	20	--
07N.18W.09.323 PINE WML	80-11-04	--	--	--	--	--	--	--	--
	80-11-04	--	--	640	--	--	--	250	--
07N.18W.11.234 TRUJILLO	80-10-29	--	--	60	--	--	--	1700	--
07N.18W.26.442 ROAD WML	80-10-29	--	--	300	--	--	--	140	--
07N.18W.29.311 SOLOMON W	80-10-30	--	--	180	--	--	--	940	--
07N.19W.02.344 CHALK WML	80-10-30	--	--	210	--	--	--	290	--
07N.19W.08.333 FRANCISCA	80-11-06	--	--	100	--	--	--	2500	--
07N.19W.12.142 DEEP WML	80-10-30	--	--	1000	--	--	--	270	--
07N.19W.15.131 DENT WML	80-11-06	--	--	120	--	--	--	4800	--
07N.19W.31.411 VENADITO	80-11-11	--	--	40	--	--	--	40	--
07N.19W.33.423 NEW WML	80-11-05	--	--	110	--	--	--	8100	--
07N.20W.10.311 HARKER	80-10-21	--	--	50	--	--	--	320	--
07N.20W.14.212A HARKER	80-10-21	--	--	100	--	--	--	20	--
07N.20W.14.213 HARKER	80-10-02	--	--	60	--	--	--	160	--
07N.20W.26.334 VENADITO	80-10-21	--	--	200	--	--	--	4700	--
07N.21W.10.332 BOB WELL	80-10-01	--	--	220	--	--	--	120	--
07N.21W.36.222 36 WELL	80-10-15	--	--	140	--	--	--	700	--
08N.12W.19.334 MAJOR	81-05-06	--	--	30	--	--	--	40	--
08N.16W.22.342 C KITCH R	81-01-08	--	--	380	--	--	--	50	--
08N.17W.30.332	80-12-04	--	--	290	--	--	--	<10	--
08N.19W.36.313 MONTANO	81-02-10	--	--	30	--	--	--	<10	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
06N.19W.16.113 CARTER WM	80-10-29	10	--	--	--
06N.19W.24.311 ROCK HOUS	80-11-05	180	--	--	--
06N.19W.24.421 CROW WML	80-11-05	5	--	--	--
06N.19W.29.231 JARALOSA	80-11-11	30	--	--	--
06N.20W.04.233 MAZON WEL	80-10-15	800	--	--	--
06N.20W.10.213 PADILLA W	80-10-01	570	--	--	--
06N.20W.31.132 LEN COOK	80-10-21	20	--	--	--
07N.04W.13.114 B MAJOR	81-05-19	4	--	--	--
07N.04W.15.222 B MAJOR	81-05-19	170	--	--	--
07N.04W.25.111 RED WMLL	81-05-19	30	--	--	--
07N.04W.29.421	81-06-09	70	--	--	--
07N.05W.06.221A ROMERO P	81-03-26	5	--	--	--
07N.06W.10.443 B MARMON	81-03-26	3	--	--	--
07N.06W.18.424 F MARMON	81-03-26	2	--	--	--
07N.06W.22.331 ALBERTS H	81-03-26	10	--	--	--
07N.11W.02.311 EAST WM	81-04-29	5	--	--	--
07N.16W.06.314 GRIEGO	81-01-06	50	--	--	--
07N.17W.16.221 E JOE WML	80-11-04	140	--	--	--
07N.17W.30.121 HIGHWAY	80-10-29	10	--	--	--
07N.18W.09.323 PINE WML	80-11-04	--	--	--	--

CIBOLA COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
	80-11-04	7	--	--	--
07N.18W.11.234 TRUJILLO	80-10-29	90	--	--	--
07N.18W.26.442 ROAD WML	80-10-29	30	--	--	--
07N.18W.29.311 SOLOMON W	80-10-30	4	--	--	--
07N.19W.02.344 CHALK WML	80-10-30	4	--	--	--
07N.19W.08.333 FRANCISCA	80-11-06	20	--	--	--
07N.19W.12.142 DEEP WML	80-10-30	10	--	--	--
07N.19W.15.131 DENT WML	80-11-06	40	--	--	--
07N.19W.31.411 VENADITO	80-11-11	10	--	--	--
07N.19W.33.423 NEW WML	80-11-05	80	--	--	--
07N.20W.10.311 HARKER	80-10-21	350	--	--	--
07N.20W.14.212A HARKER	80-10-21	10	--	--	--
07N.20W.14.213 HARKER	80-10-02	550	--	--	--
07N.20W.26.334 VENADITO	80-10-21	100	--	--	--
07N.21W.10.332 BOB WELL	80-10-01	20	--	--	--
07N.21W.36.222 36 WELL	80-10-15	550	--	--	--
08N.12W.19.334 MAJOR	81-05-06	6	--	--	--
08N.16W.22.342 C KITCH R	81-01-08	6	--	--	--
08N.17W.30.332	80-12-04	20	--	--	--
08N.19W.36.313 MONTANO	81-02-10	10	--	--	--

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)
09N.12W.12.113 AGUA FRIA	350144108031801	006	SP	81-07-14	1630	112LGUN	--	--	7600.00
09N.14W.06.111 EL MORO	350245108214601	006	GW	81-01-05	1500	221ZUNIS	151.00	202	7162.00
10N.11W.31.124 LAVA WELL	350327108022001	006	GW	81-07-28	1400	400PCMB	193.20	200	7808.00
10N.14W.34.312 V BOND	350308108182701	006	GW	81-01-05	1410	112LGUN	--	--	7278.00
11N.11W.05.232	351248108010201	006	GW	81-07-15	1730	310YESO	327.00	357	6998.00
11N.12W.19.321 POST OFFI	351008108084701	006	SP	81-07-15	1330	400PCMB	--	--	8425.00
11N.15W.32.242 MCDONALD	350836108260301	006	GW	81-01-07	0900	110AVMB	--	120	7130.00
12N.07W.03.434 LOWER AME	351724107333701	006	SP	81-07-14	1300	000EXRV	--	--	9220.00
12N.07W.08.322 SAN MATEO	351650107355601	006	SP	81-07-14	1000	000EXRV	--	--	8940.00
12N.07W.10.414 AMERCANY	351613107333701	006	SP	81-07-14	1130	000EXRV	--	--	9420.00
12N.07W.31.131 GOOSEBERR	351337107372401	006	SP	81-07-13	1200	000EXRV	--	--	9800.00
12N.08W.24.112 ROCK SPRI	351533107382001	006	SP	81-07-16	0900	--	--	--	9020.00
12N.08W.25.111 TWIN SPRI	351445107382601	006	SP	81-07-15	1300	000EXRV	--	--	9465.00
12N.08W.35.231 COAL MINE	351342107385601	006	SP	81-07-15	1400	000EXRV	--	--	8810.00
		006	SP	81-07-15	1430	000EXRV	--	--	--
12N.08W.36.234 LOBO SPRI	351332107374501	006	SP	81-07-13	1200	000EXRV	--	--	9560.00

LOCAL IDENT-I-FIER	DATE OF SAMPLE	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE, INSTAN-TANEOUS (GPM) (00059)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
09N.12W.12.113 AGUA FRIA	81-07-14	--	--	9.0	308	7.0	6.0	130	--	39
09N.14W.06.111 EL MORO	81-01-05	--	202	10	440	8.3	14.0	120	0	30
10N.11W.31.124 LAVA WELL	81-07-28	--	200	2.0	250	7.3	14.0	120	--	33
10N.14W.34.312 V BOND	81-01-05	--	--	5.0	455	7.8	14.5	140	0	36
11N.11W.05.232	81-07-15	--	357	1.0	500	7.5	15.0	240	--	55
11N.12W.19.321 POST OFFI	81-07-15	--	--	6.0	80	5.7	10.5	43	--	12
11N.15W.32.242 MCDONALD	81-01-07	--	120	2.0	800	8.5	6.0	68	0	15
12N.07W.03.434 LOWER AME	81-07-14	--	--	.2	190	7.7	11.0	78	--	19
12N.07W.08.322 SAN MATEO	81-07-14	--	--	.2	127	8.5	12.5	54	--	17
12N.07W.10.414 AMERCANY	81-07-14	--	--	2.0	129	7.9	12.0	50	--	12
12N.07W.31.131 GOOSEBERR	81-07-13	--	--	.3	111	7.4	14.0	40	--	10
12N.08W.24.112 ROCK SPRI	81-07-16	--	--	--	130	7.0	9.0	50	--	13
12N.08W.25.111 TWIN SPRI	81-07-15	--	--	.2	160	7.0	14.0	63	--	13
12N.08W.35.231 COAL MINE	81-07-15	--	--	--	106	7.7	8.0	33	--	7.7
	81-07-15	--	--	--	1790	--	--	--	--	--
12N.08W.36.234 LOBO SPRI	81-07-13	--	--	2.0	117	8.1	14.0	43	--	9.5

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

CIBOLA COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	MANGA-POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	SELE-ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
09N.12W.12.113 AGUA FRIA	81-07-14	7.3	9.2	.4	5.2	--	130	10	4.0	.5
09N.14W.06.111 EL MORO	81-01-05	11	41	1.6	2.9	--	160	16	18	.3
10N.11W.31.124 LAVA WELL	81-07-28	8.5	8.3	.4	1.1	--	110	22	4.9	1.0
10N.14W.34.312 V BOND	81-01-05	12	43	1.6	2.0	--	190	16	13	.3
11N.11W.05.232	81-07-15	25	7.2	.2	1.2	--	240	7.0	13	.5
11N.12W.19.321 POST OFFI	81-07-15	3.1	4.4	.3	.8	--	43	1.0	1.1	.3
11N.15W.32.242 MCDONALD	81-01-07	7.3	150	7.9	1.0	--	--	31	52	.6
12N.07W.03.434 LOWER AME	81-07-14	7.3	7.9	.4	1.0	--	89	1.0	2.2	.4
12N.07W.08.322 SAN MATEO	81-07-14	2.9	4.2	.3	1.0	--	52	1.0	1.6	.6
12N.07W.10.414 AMERCANY	81-07-14	4.8	6.7	.5	1.4	--	59	1.0	1.4	.5
12N.07W.31.131 GOOSEBERR	81-07-13	3.6	5.8	.4	3.9	--	51	2.0	1.1	.5
12N.08W.24.112 ROCK SPRI	81-07-16	4.2	5.7	.4	2.5	--	50	4.0	2.7	.4
12N.08W.25.111 TWIN SPRI	81-07-15	7.4	5.6	.3	2.0	--	73	<1.0	1.5	.5
12N.08W.35.231 COAL MINE	81-07-15	3.3	6.5	.5	3.7	47	--	1.0	1.2	.6
	81-07-15	--	--	--	--	--	--	--	--	--
12N.08W.36.234 LOBO SPRI	81-07-13	4.7	5.5	.4	2.9	--	48	1.0	2.4	.6

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
09N.12W.12.113 AGUA FRIA	81-07-14	21	--	178	--	--	--	.80	--	--
09N.14W.06.111 EL MORO	81-01-05	31	--	255	--	--	--	1.9	--	--
10N.11W.31.124 LAVA WELL	81-07-28	26	--	172	--	--	--	.32	--	--
10N.14W.34.312 V BOND	81-01-05	26	--	271	--	--	1.9	1.9	--	--
11N.11W.05.232	81-07-15	12	--	269	--	--	--	.78	--	--
11N.12W.19.321 POST OFFI	81-07-15	20	--	69	--	--	--	.03	--	--
11N.15W.32.242 MCDONALD	81-01-07	11	--	436	--	--	--	1.2	--	--
12N.07W.03.434 LOWER AME	81-07-14	37	--	131	--	--	--	.28	--	--
12N.07W.08.322 SAN MATEO	81-07-14	26	--	86	--	--	--	.13	--	--
12N.07W.10.414 AMERCANY	81-07-14	41	--	106	--	--	--	.42	--	--
12N.07W.31.131 GOOSEBERR	81-07-13	47	--	107	--	--	--	.49	--	--
12N.08W.24.112 ROCK SPRI	81-07-16	34	--	97	--	--	--	.10	--	--
12N.08W.25.111 TWIN SPRI	81-07-15	58	--	--	--	--	--	.23	--	.050
12N.08W.35.231 COAL MINE	81-07-15	45	--	98	--	--	--	.35	--	--
	81-07-15	--	--	--	--	--	--	--	--	--
12N.08W.36.234 LOBO SPRI	81-07-13	45	--	103	--	--	--	.66	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
09N.12W.12.113 AGUA FRIA	81-07-14	--	--	10	--	--	--	28	--
09N.14W.06.111 EL MORO	81-01-05	--	--	40	--	--	--	20	--
10N.11W.31.124 LAVA WELL	81-07-28	--	--	10	--	--	--	57	--
10N.14W.34.312 V BOND	81-01-05	--	--	30	--	--	--	30	--
11N.11W.05.232	81-07-15	--	--	10	--	--	--	110	--
11N.12W.19.321 POST OFFI	81-07-15	--	--	10	--	--	--	150	--
11N.15W.32.242 MCDONALD	81-01-07	--	--	280	--	--	--	20	--
12N.07W.03.434 LOWER AME	81-07-14	--	--	5	--	--	--	82	--
12N.07W.08.322 SAN MATEO	81-07-14	--	--	0	--	--	--	66	--
12N.07W.10.414 AMERCANY	81-07-14	--	--	5	--	--	--	29	--
12N.07W.31.131 GOOSEBERR	81-07-13	--	--	5	--	--	--	38	--
12N.08W.24.112 ROCK SPRI	81-07-16	--	--	6	--	--	--	46	--
12N.08W.25.111 TWIN SPRI	81-07-15	--	--	0	--	--	--	40	--
12N.08W.35.231 COAL MINE	81-07-15	--	--	5	--	--	--	28	--
	81-07-15	--	--	--	--	--	--	--	--
12N.08W.36.234 LOBO SPRI	81-07-13	--	--	6	--	--	--	68	--

CIBOLA COUNTY - concluded

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
09N.12W.12.113 AGUA FRIA	81-07-14	4	--	--	--
09N.14W.06.111 EL MORO	81-01-05	2	--	--	--
10N.11W.31.124 LAVA WELL	81-07-28	3	--	--	--
10N.14W.34.312 V BOND	81-01-05	7	--	--	--
11N.11W.05.232	81-07-15	13	--	--	--
11N.12W.19.321 POST OFFI	81-07-15	5	--	--	--
11N.15W.32.242 MCDONALD	81-01-07	2	--	--	--
12N.07W.03.434 LOWER AME	81-07-14	6	--	--	--
12N.07W.08.322 SAN MATEO	81-07-14	4	--	--	--
12N.07W.10.414 AMERCANY	81-07-14	2	--	--	--
12N.07W.31.131 GOOSEBERR	81-07-13	4	--	--	--
12N.08W.24.112 ROCK SPRI	81-07-16	6	--	--	--
12N.08W.25.111 TWIN SPRI	81-07-15	10	--	--	--
12N.08W.35.231 COAL MINE	81-07-15	2	--	--	--
	81-07-15	--	--	--	--
12N.08W.36.234 LOBO SPRI	81-07-13	3	--	--	--

DONA ANA COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SAMP-LING DEPTH (FT) (00003)	DEPTH TO BOT-TOM OF WATER-BEARING ZONE (FT) (72003)
19S.05E.17.331 MAR-1	323906106274301	013	GW	81-03-11	1200	110BLSN	213.64	--	--
		013	GW	81-08-05	0915	110BLSN	213.77	--	--
19S.05E.17.334 MAR-2	323857106273201	013	GW	81-08-05	1005	110BLSN	220.01	--	--
21S.04E.23.233 HTA-1	322801106300801	013	GW	81-03-10	1315	000IRSV	59.86	--	--
		013	GW	81-08-04	1130	000IRSV	60.03	--	--
21S.05E.16.132 SMR-1	322856106262701	013	GW	81-03-11	1200	110BLSN	294.24	--	--
		013	GW	81-08-04	1045	110BLSN	294.40	--	--
21S.05E.20.344 SMR-4	322735106271301	013	GW	81-08-06	1330	110BLSN	287.45	--	--
22S.04E.01.431 T-9	322503106290801	013	GW	81-08-05	1150	110BLSN	394.00	--	595
22S.04E.11.224 T-8	322434106295001	013	GW	81-07-28	1100	110BLSN	582.72	610	--
		013	GW	81-07-28	1105	110BLSN	582.72	910	--
22S.04E.12.214 SW-20	322446106290801	013	GW	81-02-16	1200	110BLSN	512.50	--	--
		013	GW	81-08-13	1030	110BLSN	517.69	--	--
22S.04E.12.414 SW-19	322424106290301	013	GW	81-02-16	1200	110BLSN	453.16	--	--
		013	GW	81-08-19	1030	110BLSN	458.42	--	--
22S.04E.12.434 SW-18	322405106290101	013	GW	81-02-15	1515	110BLSN	427.80	--	--
		013	GW	81-08-20	1200	110BLSN	440.40	--	--
22S.04E.13.241 SW-17	322347106285801	013	GW	81-02-16	1200	110BLSN	438.74	--	--
		013	GW	81-08-21	1000	110BLSN	460.93	--	--
22S.04E.13.311 SW-13	322331106293801	013	GW	81-02-17	1500	110BLSN	290.84	--	--
		013	GW	81-08-25	1200	110BLSN	300.33	--	--
22S.04E.13.432 SW-16	322325106290401	013	GW	81-02-15	1200	110BLSN	450.26	--	--
		013	GW	81-08-06	1530	110BLSN	466.00	--	--
22S.04E.14.133 T-6	322339106304301	013	GW	81-07-29	0930	110BLSN	201.83	--	--
22S.04E.24.112 SW-11	322310106293401	013	GW	81-02-15	1400	110BLSN	274.44	--	--
		013	GW	81-08-04	1522	110BLSN	--	--	--
22S.04E.24.212A SW-10A	322309106290201	013	GW	81-02-15	1348	110BLSN	424.60	--	--
		013	GW	81-02-17	1430	110BLSN	424.60	--	--
		013	GW	81-08-03	1345	110BLSN	442.42	--	--
22S.05E.05.313 T-10	322510106274101	013	GW	81-08-04	1545	110BLSN	273.09	--	--
22S.05E.07.342 T-7	322415106281801	013	GW	81-08-06	0930	110BLSN	371.01	--	966
22S.05E.16.111 T-4	322403106263901	013	GW	81-07-28	1200	110BLSN	226.57	--	400
22S.05E.19.141 SW-22	322256106282601	013	GW	81-08-27	1500	110BLSN	402.79	--	--
22S.05E.19.323 SW-21	322237106282801	013	GW	81-03-10	1435	110BLSN	354.56	--	--
		013	GW	81-09-08	0910	110BLSN	361.20	--	--
22S.05E.20.111 T-5	322311106274101	013	GW	81-07-28	0900	110BLSN	276.41	330	400
22S.05E.29.412 T-11	322155106270201	013	GW	81-08-04	1120	110BLSN	273.09	--	432
22S.05E.33.244 T-15	322108106254701	013	GW	81-07-29	1430	110BLSN	178.30	--	--
23S.05E.05.321 T-18	322010106272701	013	GW	81-07-31	1040	110BLSN	238.95	--	--
23S.05E.10.413 WSMR T-16	321910106250701	013	GW	81-07-30	0935	110BLSN	188.00	--	--

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DONA ANA COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DEPTH TO TOP OF WATER-BEARING ZONE (FT) (72002)	DEPTH OF WELL, TOTAL (FEET) (72008)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE, INSTAN-TANEOUS (GPM) (00059)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)
19S.05E.17.331 MAR-1	81-03-11	--	--	--	--	--	886	7.4	--	--
	81-08-05	--	--	--	--	--	1010	7.7	25.5	--
19S.05E.17.334 MAR-2	81-08-05	--	--	--	--	--	785	7.7	24.0	--
21S.04E.23.233 HTA-1	81-03-10	--	--	--	--	--	709	7.4	--	--
	81-08-04	--	--	--	--	--	712	7.7	25.5	--
21S.05E.16.132 SMR-1	81-03-11	--	--	--	--	--	780	7.3	--	--
	81-08-04	--	--	--	--	--	787	7.7	26.0	--
21S.05E.20.344 SMR-4	81-08-06	--	--	120	--	8.0	703	7.3	28.5	--
22S.04E.01.431 T-9	81-08-05	538	--	80	598	6.0	875	7.8	28.0	--
22S.04E.11.224 T-8	81-07-28	--	--	--	1060	--	678	7.8	25.5	--
	81-07-28	--	--	--	--	--	632	7.8	28.0	--
22S.04E.12.214 SW-20	81-02-16	--	--	--	--	--	607	7.7	--	--
	81-08-13	--	--	--	--	--	562	7.9	26.0	--
22S.04E.12.414 SW-19	81-02-16	--	--	--	--	--	398	7.7	26.5	--
	81-08-19	--	--	--	--	--	392	8.0	--	--
22S.04E.12.434 SW-18	81-02-15	--	--	--	--	--	384	7.8	26.5	--
	81-08-20	--	--	--	--	--	394	7.8	25.5	--
22S.04E.13.241 SW-17	81-02-16	--	--	--	--	--	387	7.8	26.0	--
	81-08-21	--	--	--	--	--	370	8.0	26.5	--
22S.04E.13.311 SW-13	81-02-17	--	--	--	--	--	619	7.3	23.0	--
	81-08-25	--	--	--	--	--	604	7.7	24.5	--
22S.04E.13.432 SW-16	81-02-15	--	--	--	--	--	422	7.5	25.0	--
	81-08-06	--	--	--	--	--	370	7.8	26.0	--
22S.04E.14.133 T-6	81-07-29	--	--	150	515	8.0	435	7.1	24.5	--
22S.04E.24.112 SW-11	81-02-15	--	--	--	--	--	653	7.2	23.0	--
	81-08-04	--	--	--	--	--	556	7.6	25.5	--
22S.04E.24.212A SW-10A	81-02-15	--	--	--	--	--	323	7.6	26.0	--
	81-02-17	--	--	--	--	--	323	7.5	24.0	--
	81-08-03	--	--	--	--	--	330	7.8	26.0	--
22S.05E.05.313 T-10	81-08-04	--	--	120	598	8.0	353	7.5	27.0	--
22S.05E.07.342 T-7	81-08-06	396	--	210	970	7.0	340	8.0	27.0	--
22S.05E.16.111 T-4	81-07-28	300	--	--	400	--	272	7.6	25.5	--
22S.05E.19.141 SW-22	81-08-27	--	--	--	--	--	346	8.1	28.0	--
22S.05E.19.323 SW-21	81-03-10	--	--	--	--	--	287	7.3	--	--
	81-09-08	--	--	--	--	--	286	7.7	24.5	--
22S.05E.20.111 T-5	81-07-28	300	--	--	400	--	378	7.3	26.0	--
22S.05E.29.412 T-11	81-08-04	305	--	120	576	8.0	316	7.6	26.5	--
22S.05E.33.244 T-15	81-07-29	--	--	--	--	--	280	8.4	27.0	--
23S.05E.05.321 T-18	81-07-31	--	--	180	--	8.0	686	7.4	30.0	--
23S.05E.10.413 WSMR T-16	81-07-30	--	--	750	--	8.0	355	7.7	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	SODIUM+ POTAS-SIUM DIS-SOLVED (MG/L AS NA) (00933)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)
19S.05E.17.331 MAR-1	81-03-11	--	--	--	--	--	--	--	--	--
	81-08-05	450	--	94	53	39	.9	--	2.2	--
19S.05E.17.334 MAR-2	81-08-05	320	--	65	39	43	1.2	--	2.2	--
21S.04E.23.233 HTA-1	81-03-10	--	--	--	--	--	--	--	--	--
	81-08-04	250	--	79	13	50	1.4	--	1.7	--
21S.05E.16.132 SMR-1	81-03-11	--	--	--	--	--	--	--	--	--
	81-08-04	360	--	68	45	26	.7	--	2.0	--
21S.05E.20.344 SMR-4	81-08-06	250	--	73	16	49	1.4	--	2.9	--
22S.04E.01.431 T-9	81-08-05	330	--	94	22	47	1.2	--	3.8	--
22S.04E.11.224 T-8	81-07-28	--	--	--	--	--	--	--	--	--
	81-07-28	--	--	--	--	--	--	--	--	--
22S.04E.12.214 SW-20	81-02-16	--	--	--	--	--	--	--	--	--
	81-08-13	--	--	--	--	--	--	--	--	--
22S.04E.12.414 SW-19	81-02-16	--	--	--	--	--	--	--	--	--
	81-08-19	--	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DONA ANA COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	SODIUM+ POTAS-SIUM DIS-SOLVED (MG/L AS NA) (00933)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)
22S.04E.12.434 SW-18	81-02-15	110	10	34	6.0	37	1.5	--	1.8	--
	81-08-20	--	--	--	--	--	--	--	--	--
22S.04E.13.241 SW-17	81-02-16	--	--	--	--	--	--	--	--	--
	81-08-21	--	--	--	--	--	--	--	--	--
22S.04E.13.311 SW-13	81-02-17	230	84	67	16	36	1.0	--	2.7	--
	81-08-25	--	--	--	--	--	--	--	--	--
22S.04E.13.432 SW-16	81-02-15	150	50	43	9.4	25	.9	--	2.1	--
	81-08-06	--	--	--	--	--	--	--	--	--
22S.04E.14.133 T-6	81-07-29	170	--	48	11	27	1.0	--	2.0	--
22S.04E.24.112 SW-11	81-02-15	250	140	72	18	30	.8	--	2.8	--
	81-08-04	--	--	--	--	--	--	--	--	--
22S.04E.24.212A SW-10A	81-02-15	--	--	--	--	--	--	--	--	--
	81-02-17	110	20	32	7.1	22	.9	--	2.0	--
	81-08-03	--	--	--	--	--	--	--	--	--
22S.05E.05.313 T-10	81-08-04	120	--	36	8.1	24	1.0	--	1.9	--
22S.05E.07.342 T-7	81-08-06	100	--	33	4.2	31	1.4	--	1.9	--
22S.05E.16.111 T-4	81-07-28	--	--	--	--	--	--	--	--	--
22S.05E.19.141 SW-22	81-08-27	--	--	--	--	--	--	--	--	--
22S.05E.19.323 SW-21	81-03-10	--	--	--	--	--	--	--	--	--
	81-09-08	--	--	--	--	--	--	--	--	--
22S.05E.20.111 T-5	81-07-28	--	--	--	--	--	--	--	--	--
22S.05E.29.412 T-11	81-08-04	100	--	32	5.8	22	1.0	--	1.9	--
22S.05E.33.244 T-15	81-07-29	79	--	29	1.5	25	1.2	--	2.3	--
23S.05E.05.321 T-18	81-07-31	93	--	32	3.2	110	5.1	--	3.2	--
23S.05E.10.413 WSMR T-16	81-07-30	120	--	38	6.8	24	1.0	--	1.5	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
19S.05E.17.331 MAR-1	81-03-11	--	--	--	--	--	--	--	--	--
	81-08-05	190	260	53	.4	24	--	648	--	1.8
19S.05E.17.334 MAR-2	81-08-05	200	150	34	.4	24	--	484	--	1.4
21S.04E.23.233 HTA-1	81-03-10	--	--	--	--	--	--	--	--	--
	81-08-04	170	120	27	3.0	31	--	446	--	4.4
21S.05E.16.132 SMR-1	81-03-11	--	--	--	--	--	--	--	--	--
	81-08-04	240	150	30	1.1	27	--	498	--	1.1
21S.05E.20.344 SMR-4	81-08-06	140	160	35	2.0	37	--	470	--	2.4
22S.04E.01.431 T-9	81-08-05	89	200	82	2.0	24	--	538	--	2.1
22S.04E.11.224 T-8	81-07-28	--	--	--	--	--	--	--	--	--
	81-07-28	--	--	--	--	--	--	--	--	--
22S.04E.12.214 SW-20	81-02-16	--	--	--	--	--	--	--	--	--
	81-08-13	--	--	--	--	--	--	--	--	--
22S.04E.12.414 SW-19	81-02-16	--	--	--	--	--	--	--	--	--
	81-08-19	--	--	--	--	--	--	--	--	--
22S.04E.12.434 SW-18	81-02-15	100	57	11	.3	33	239	246	--	1.2
	81-08-20	--	--	--	--	--	--	--	--	--
22S.04E.13.241 SW-17	81-02-16	--	--	--	--	--	--	--	--	--
	81-08-21	--	--	--	--	--	--	--	--	--
22S.04E.13.311 SW-13	81-02-17	150	120	18	.4	39	403	424	--	7.8
	81-08-25	--	--	--	--	--	--	--	--	--
22S.04E.13.432 SW-16	81-02-15	96	58	20	.3	41	262	271	--	3.1
	81-08-06	--	--	--	--	--	--	--	--	--
22S.04E.14.133 T-6	81-07-29	140	57	13	.7	48	--	294	--	.69
22S.04E.24.112 SW-11	81-02-15	110	150	25	.3	43	438	433	--	5.7
	81-08-04	--	--	--	--	--	--	--	--	--
22S.04E.24.212A SW-10A	81-02-15	--	--	--	--	--	--	--	--	--
	81-02-17	89	48	12	.3	43	218	226	--	1.3
	81-08-03	--	--	--	--	--	--	--	--	--
22S.05E.05.313 T-10	81-08-04	120	45	12	.3	40	--	245	--	1.2

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DONA ANA COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
22S.05E.07.342 T-7	81-08-06	96	46	11	.3	34	--	224	--	1.1
22S.05E.16.111 T-4	81-07-28	--	--	--	--	--	--	--	--	--
22S.05E.19.141 SW-22	81-08-27	--	--	--	--	--	--	--	--	--
22S.05E.19.323 SW-21	81-03-10	--	--	--	--	--	--	--	--	--
	81-09-08	--	--	--	--	--	--	--	--	--
22S.05E.20.111 T-5	81-07-28	--	--	--	--	--	--	--	--	--
22S.05E.29.412 T-11	81-08-04	81	45	10	.2	40	--	210	--	.89
22S.05E.33.244 T-15	81-07-29	62	47	12	.2	51	--	208	--	.70
23S.05E.05.321 T-18	81-07-31	120	150	43	4.5	26	--	445	--	.11
23S.05E.10.413 WSMR T-16	81-07-30	110	44	12	.6	41	--	242	--	1.8

LOCAL IDENT-I-FIER	DATE OF SAMPLE	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
19S.05E.17.331 MAR-1	81-03-11	--	--	--	--	--	--	--	--
	81-08-05	--	.050	--	40	<10	--	2	--
19S.05E.17.334 MAR-2	81-08-05	--	.090	--	50	<10	--	<1	--
21S.04E.23.233 HTA-1	81-03-10	--	--	--	--	--	--	--	--
	81-08-04	--	.030	--	30	<10	--	2	--
21S.05E.16.132 SMR-1	81-03-11	--	--	--	--	--	--	--	--
	81-08-04	--	.020	--	30	<10	--	2	--
21S.05E.20.344 SMR-4	81-08-06	--	.000	--	30	<10	--	7	--
22S.04E.01.431 T-9	81-08-05	--	.000	--	40	<10	--	28	--
22S.04E.11.224 T-8	81-07-28	--	--	--	--	--	--	--	--
	81-07-28	--	--	--	--	--	--	--	--
22S.04E.12.214 SW-20	81-02-16	--	--	--	--	--	--	--	--
	81-08-13	--	--	--	--	--	--	--	--
22S.04E.12.414 SW-19	81-02-16	--	--	--	--	--	--	--	--
	81-08-19	--	--	--	--	--	--	--	--
22S.04E.12.434 SW-18	81-02-15	--	--	--	10	--	10	--	350
	81-08-20	--	--	--	--	--	--	--	--
22S.04E.13.241 SW-17	81-02-16	--	--	--	--	--	--	--	--
	81-08-21	--	--	--	--	--	--	--	--
22S.04E.13.311 SW-13	81-02-17	--	.030	--	10	--	8	--	530
	81-08-25	--	--	--	--	--	--	--	--
22S.04E.13.432 SW-16	81-02-15	--	--	--	10	--	9	--	330
	81-08-06	--	--	--	--	--	--	--	--
22S.04E.14.133 T-6	81-07-29	--	.000	--	20	<10	--	4	--
22S.04E.24.112 SW-11	81-02-15	--	--	--	10	--	9	--	560
	81-08-04	--	--	--	--	--	--	--	--
22S.04E.24.212A SW-10A	81-02-15	--	--	--	--	--	--	--	--
	81-02-17	--	.010	--	10	--	6	--	260
	81-08-03	--	--	--	--	--	--	--	--
22S.05E.05.313 T-10	81-08-04	--	.010	--	20	<10	--	2	--
22S.05E.07.342 T-7	81-08-06	--	.000	--	20	<10	--	1	--
22S.05E.16.111 T-4	81-07-28	--	--	--	--	--	--	--	--
22S.05E.19.141 SW-22	81-08-27	--	--	--	--	--	--	--	--
22S.05E.19.323 SW-21	81-03-10	--	--	--	--	--	--	--	--
	81-09-08	--	--	--	--	--	--	--	--
22S.05E.20.111 T-5	81-07-28	--	--	--	--	--	--	--	--
22S.05E.29.412 T-11	81-08-04	--	.000	--	20	<10	--	<1	--
22S.05E.33.244 T-15	81-07-29	--	.000	--	20	<10	--	4	--
23S.05E.05.321 T-18	81-07-31	--	.010	.9	100	36	--	130	--
23S.05E.10.413 WSMR T-16	81-07-30	--	.010	1.5	30	<10	--	2	--

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DONA ANA COUNTY - continued

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SAMP-LING DEPTH (FT) (00003)	DEPTH TO BOT-TOM OF WATER-BEARING ZONE (FT) (72003)
23S.05E.27.142 T-17	321647106251301	013	GW	81-07-30	1410	110BLSN	242.00	--	--
29S.01E.08.210	314812106512801	013	GW	81-04-11	--	--	320.00	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DEPTH TO TOP OF WATER-BEARING ZONE (FT) (72002)	DEPTH OF WELL, TOTAL (FEET) (72008)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE, INSTAN-TANEOUS (GPM) (00059)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)
23S.05E.27.142 T-17	81-07-30	--	457	150	--	8.0	284	7.4	26.5	--
29S.01E.08.210	81-04-11	--	--	--	--	--	1120	8.5	--	9.0

LOCAL IDENT-I-FIER	DATE OF SAMPLE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	SODIUM+ POTAS-SIUM DIS-SOLVED (MG/L AS NA) (00933)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)
23S.05E.27.142 T-17	81-07-30	81	--	28	2.8	26	1.3	--	2.1	--
29S.01E.08.210	81-04-11	82	--	18	8.7	--	--	310	--	300

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
23S.05E.27.142 T-17	81-07-30	84	35	18	.5	21	--	187	--	.70
29S.01E.08.210	81-04-11	--	120	220	1.6	44	1040	--	<1.00	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
23S.05E.27.142 T-17	81-07-30	--	<.010	5.2	20	<10	--	170	--
29S.01E.08.210	81-04-11	.040	--	--	--	--	--	50	--

EDDY COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)
21S.21E.21.BOX SHACK WEL	322727104480501	015	GW	81-08-13	1400	--	800	7.0	19.0
21S.22E.10. GISLER WELL	322923104410301	015	GW	81-08-18	1030	--	1300	6.9	22.0
21S.23E.07 GISLER HQ	322928104382501	015	GW	81-08-18	1000	--	--	--	20.0
		015	GW	81-08-18	1100	--	1100	7.4	20.0
22S.24E.23. ENDLESS CAVE	322251104281501	015	SP	81-08-13	1200	--	600	7.7	--
25S.25E.28. CHOSA SPRING	320550104240801	015	SP	81-07-31	1140	--	2950	7.6	30.0
26S.25E.25. HAY HOLLOW S	320052104204601	015	SP	81-07-31	1400	--	2650	8.2	30.0

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

EDDY COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
21S.21E.21.BOX SHACK WEL	81-08-13	440	110	40	9.9	.2	1.1	150	290	6.7
21S.22E.10. GISLER WELL	81-08-18	--	--	--	--	--	--	--	--	--
21S.23E.07 GISLER HQ	81-08-18	650	170	55	7.9	.1	1.2	--	440	4.2
	81-08-18	850	240	60	10	.2	1.2	--	580	15
22S.24E.23. ENDLESS CAVE	81-08-13	330	50	49	8.9	.2	.9	130	150	14
25S.25E.28. CHOSA SPRING	81-07-31	1700	540	83	78	.8	7.3	120	1600	77
26S.25E.25. HAY HOLLOW S	81-07-31	1700	590	57	64	.7	7.4	130	1500	82

LOCAL IDENT-I-FIER	DATE OF SAMPLE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)
21S.21E.21.BOX SHACK WEL	81-08-13	.9	8.4	575	561	.34	0	30	30	<1
21S.22E.10. GISLER WELL	81-08-18	--	--	--	--	--	--	--	--	--
21S.23E.07 GISLER HQ	81-08-18	.5	24	455	--	--	2	20	40	<1
	81-08-18	.9	13	977	928	--	0	30	30	<1
22S.24E.23. ENDLESS CAVE	81-08-13	.6	14	430	414	11	1	50	30	<1
25S.25E.28. CHOSA SPRING	81-07-31	1.0	24	2890	2530	11	2	0	1200	0
26S.25E.25. HAY HOLLOW S	81-07-31	.8	22	2740	2420	4.6	1	100	1100	1

LOCAL IDENT-I-FIER	DATE OF SAMPLE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
21S.21E.21.BOX SHACK WEL	81-08-13	0	1	1400	2	140	.1	1	0
21S.22E.10. GISLER WELL	81-08-18	--	--	--	--	--	--	--	--
21S.23E.07 GISLER HQ	81-08-18	0	2	--	1	--	.0	2	0
	81-08-18	20	0	7400	0	98	.0	6	0
22S.24E.23. ENDLESS CAVE	81-08-13	0	3	<10	2	<1	.0	1	0
25S.25E.28. CHOSA SPRING	81-07-31	10	3	70	2	10	.2	3	0
26S.25E.25. HAY HOLLOW S	81-07-31	10	2	100	1	30	.1	3	0

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)
21S.21E.21.BOX SHACK WEL	322727104480501	015	GW	81-08-13	1400	<17	<.7	<6.2	.7
21S.22E.10. GISLER WELL	322923104410301	015	GW	81-08-18	1030	<34	69	<19	<23
21S.23E.07 GISLER HQ	322928104382501	015	GW	81-08-18	1100	<28	<.4	<12	.5
22S.24E.23. ENDLESS CAVE	322251104281501	015	SP	81-08-13	1200	<9.8	.8	<4.6	.6
25S.25E.28. CHOSA SPRING	320550104240801	015	SP	81-07-31	1140	<120	<.4	<58	.7
26S.25E.25. HAY HOLLOW S	320052104204601	015	SP	81-07-31	1400	<65	2.8	<33	4.0

LOCAL IDENT-I-FIER	DATE OF SAMPLE	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
21S.21E.21.BOX SHACK WEL	81-08-13	<6.0	.7	<.6
21S.22E.10. GISLER WELL	81-08-18	<18	<22	1.6
21S.23E.07 GISLER HQ	81-08-18	<12	.5	1.9
22S.24E.23. ENDLESS CAVE	81-08-13	<4.4	.6	<.6
25S.25E.28. CHOSA SPRING	81-07-31	<55	.7	5.6
26S.25E.25. HAY HOLLOW S	81-07-31	<31	3.8	5.6

HIDALGO COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)
20S.19W.15.312 FULLER RA	323355108475001	023	GW	81-08-19	1200	--	336.00	361	4237.00
21S.20W.17.324 DAY WELL	322808108552401	023	GW	81-08-17	1200	--	246.00	--	4240.00
21S.20W.34.323 3 MILLS	322601108532201	023	GW	81-09-08	1200	--	--	--	4190.00
21S.21W.30.444 ALLUVIAL	322636109015901	023	GW	81-08-17	1200	--	557.00	--	4358.00
21S.21W.35.243 HIGH LONE	322614108580201	023	GW	81-09-06	1200	--	--	--	4183.00
22S.18W.09.444 DAVIS WIN	323403108412701	023	GW	81-08-19	1200	--	--	--	--
22S.19W.05.312 BOX M RAN	322513108493001	023	GW	81-08-16	1200	--	250.00	--	4206.00
22S.19W.12.221 NORTHWELL	322448108444301	023	GW	81-08-19	1200	--	190.00	--	4262.00
22S.19W.17.342 MALPAIS	322314108490901	023	GW	81-09-08	1200	--	189.00	--	4180.00
22S.20W.18.411 HACKBERRY	322320108560301	023	GW	81-08-17	1200	--	150.00	250	4158.00
22S.20W.23.142 ADOBE WIN	322247108521201	023	GW	81-08-17	1200	--	--	185	4177.00
22S.20W.26.433 BOX M LAK	322126108521601	023	GW	81-08-18	1200	--	99.00	--	4170.00
22S.21W.13.234	322333108570801	023	GW	81-08-16	1200	--	207.00	300	4158.00
22S.21W.36.423 BUTTERFIE	322044108565801	023	GW	81-08-18	1200	--	208.00	--	4250.00
23S.19W.07.242 FOX WINDM	321921108494401	023	GW	81-08-18	1200	--	123.00	--	4191.00
23S.21W.13.441 ARSENIC W	321807108565801	023	GW	81-09-06	1200	--	123.00	--	4170.00
23S.21W.36.444 ROBINSON	321515108565001	023	GW	81-08-18	1200	--	100.00	110	4156.00
26S.18W.34.432 OLD MAN P	315949108395501	023	GW	81-09-09	1200	--	--	100	4474.00
27S.18W.05.334 PETERSON	315848108423201	023	GW	81-09-09	1200	--	224.00	301	4475.00
27S.18W.12.220 HEWLITT W	315839108374301	023	GW	81-09-09	1200	--	120.00	163	4350.00
27S.19W.23.114 MARVIN DA	315655108453801	023	GW	81-09-09	1200	--	207.00	400	4268.00

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DEPTH OF HOLE, TOTAL (FEET) (72001)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)
20S.19W.15.312 FULLER RA	81-08-19	365	570	8.3	27.0	28	9.1	1.2	110	9.4
21S.20W.17.324 DAY WELL	81-08-17	--	1000	8.1	26.0	95	30	4.9	170	7.9
21S.20W.34.323 3 MILLS	81-09-08	--	1800	7.7	22.0	310	96	17	300	7.8
21S.21W.30.444 ALLUVIAL	81-08-17	--	460	7.9	30.0	120	31	10	40	1.7
21S.21W.35.243 HIGH LONE	81-09-06	400	1570	8.6	28.0	19	6.9	.4	320	33
22S.18W.09.444 DAVIS WIN	81-08-19	--	333	8.1	25.5	54	17	2.7	53	3.3
22S.19W.05.312 BOX M RAN	81-08-16	--	346	8.7	24.0	14	4.5	.6	68	8.3
22S.19W.12.221 NORTHWELL	81-08-19	--	275	7.9	27.5	85	29	3.0	28	1.4
22S.19W.17.342 MALPAIS	81-09-08	--	430	8.7	22.0	23	8.5	.5	84	7.6
22S.20W.18.411 HACKBERRY	81-08-17	--	2930	7.8	24.0	130	35	11	650	26
22S.20W.23.142 ADOBE WIN	81-08-17	--	2300	7.8	24.0	170	41	17	440	16
22S.20W.26.433 BOX M LAK	81-08-18	--	1810	8.9	26.0	16	2.6	2.3	490	61
22S.21W.13.234	81-08-16	--	3050	7.9	28.0	170	46	14	530	18
22S.21W.36.423 BUTTERFIE	81-08-18	--	7620	7.4	29.0	290	48	42	1600	41
23S.19W.07.242 FOX WINDM	81-08-18	--	1380	7.4	23.5	220	42	29	260	8.5
23S.21W.13.441 ARSENIC W	81-09-06	--	13800	9.3	25.5	6	1.3	.6	3500	637
23S.21W.36.444 ROBINSON	81-08-18	--	1360	9.0	25.0	5	1.6	.4	310	61
26S.18W.34.432 OLD MAN P	81-09-09	--	420	8.0	24.0	82	24	5.4	67	3.4
27S.18W.05.334 PETERSON	81-09-09	--	482	7.7	25.0	100	34	4.7	79	3.5
27S.18W.12.220 HEWLITT W	81-09-09	163	600	8.2	26.0	26	9.2	.7	120	11
27S.19W.23.114 MARVIN DA	81-09-09	400	524	7.9	20.0	82	20	7.8	87	4.5

LOCAL IDENT-I-FIER	DATE OF SAMPLE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3) (99430)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
20S.19W.15.312 FULLER RA	81-08-19	3.4	210	--	--	170	59	17	3.7	32
21S.20W.17.324 DAY WELL	81-08-17	2.6	110	10	--	87	170	160	1.4	28
21S.20W.34.323 3 MILLS	81-09-08	4.0	--	--	64	47	650	190	.6	29
21S.21W.30.444 ALLUVIAL	81-08-17	2.4	200	--	--	160	12	17	.5	38
21S.21W.35.243 HIGH LONE	81-09-06	1.5	205	44	240	190	300	150	8.1	39

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

HIDALGO COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3) (99430)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
22S.18W.09.444 DAVIS WIN	81-08-19	1.8	140	--	--	120	26	14	.9	29
22S.19W.05.312 BOX M RAN	81-08-16	.8	71	20	--	100	28	16	1.7	30
22S.19W.12.221 NORTHWELL	81-08-19	2.3	120	--	--	93	25	18	.7	30
22S.19W.17.342 MALPAIS	81-09-08	1.0	140	10	150	97	60	25	4.3	34
22S.20W.18.411 HACKBERRY	81-08-17	2.3	440	--	--	270	800	340	3.7	41
22S.20W.23.142 ADOBE WIN	81-08-17	2.9	270	--	--	200	720	200	3.3	49
22S.20W.26.433 BOX M LAK	81-08-18	1.2	760	56	--	640	240	69	22	32
22S.21W.13.234	81-08-16	2.9	160	--	--	130	720	370	3.5	48
22S.21W.36.423 BUTTERFIE	81-08-18	4.6	1220	--	--	900	1900	950	19	46
23S.19W.07.242 FOX WINDM	81-08-18	6.1	820	--	--	560	110	65	9.5	37
23S.21W.13.441 ARSENIC W	81-09-06	4.8	3880	680	4560	3400	2600	1000	90	28
23S.21W.36.444 ROBINSON	81-08-18	.8	530	60	--	470	150	23	14	31
26S.18W.34.432 OLD MAN P	81-09-09	2.3	190	--	190	150	30	21	2.3	34
27S.18W.05.334 PETERSON	81-09-09	3.8	--	--	230	190	30	19	6.9	35
27S.18W.12.220 HEWLITT W	81-09-09	4.9	--	--	260	210	41	20	4.3	42
27S.19W.23.114 MARVIN DA	81-09-09	2.9	260	--	260	210	44	14	.6	25

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
20S.19W.15.312 FULLER RA	81-08-19	339	.30	--	--	150	--	--	--	120
21S.20W.17.324 DAY WELL	81-08-17	621	.26	--	--	170	--	--	--	94
21S.20W.34.323 3 MILLS	81-09-08	1320	.46	--	--	140	--	--	--	31
21S.21W.30.444 ALLUVIAL	81-08-17	256	1.9	--	--	50	--	--	--	23
21S.21W.35.243 HIGH LONE	81-09-06	942	.11	--	--	870	--	--	--	58
22S.18W.09.444 DAVIS WIN	81-08-19	223	1.4	--	--	50	--	--	--	59
22S.19W.05.312 BOX M RAN	81-08-16	213	.78	--	--	100	--	--	--	40
22S.19W.12.221 NORTHWELL	81-08-19	198	1.3	--	--	30	--	--	--	73
22S.19W.17.342 MALPAIS	81-09-08	363	.31	--	--	180	--	--	--	110
22S.20W.18.411 HACKBERRY	81-08-17	2050	.12	--	--	1300	--	--	--	620
22S.20W.23.142 ADOBE WIN	81-08-17	1600	.25	--	--	890	--	--	--	87
22S.20W.26.433 BOX M LAK	81-08-18	1250	.13	--	--	1000	--	--	--	42
22S.21W.13.234	81-08-16	1810	.15	--	--	650	--	--	--	70
22S.21W.36.423 BUTTERFIE	81-08-18	5160	.18	--	--	3200	--	--	--	120
23S.19W.07.242 FOX WINDM	81-08-18	900	.13	--	--	590	--	--	--	3100
23S.21W.13.441 ARSENIC W	81-09-06	9290	3.2	750	100	8900	2	20	26	190
23S.21W.36.444 ROBINSON	81-08-18	816	.43	--	--	380	--	--	--	53
26S.18W.34.432 OLD MAN P	81-09-09	293	3.8	--	--	120	--	--	--	58
27S.18W.05.334 PETERSON	81-09-09	345	4.2	--	--	180	--	--	--	19
27S.18W.12.220 HEWLITT W	81-09-09	375	1.5	--	--	190	--	--	--	80
27S.19W.23.114 MARVIN DA	81-09-09	329	.15	--	--	140	--	--	--	940

LOCAL IDENT-I-FIER	DATE OF SAMPLE	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
20S.19W.15.312 FULLER RA	81-08-19	--	7	--	--	--
21S.20W.17.324 DAY WELL	81-08-17	--	20	--	--	--
21S.20W.34.323 3 MILLS	81-09-08	--	5	--	--	--
21S.21W.30.444 ALLUVIAL	81-08-17	--	9	--	--	--
21S.21W.35.243 HIGH LONE	81-09-06	--	10	--	--	--
22S.18W.09.444 DAVIS WIN	81-08-19	--	9	--	--	--
22S.19W.05.312 BOX M RAN	81-08-16	--	3	--	--	--
22S.19W.12.221 NORTHWELL	81-08-19	--	7	--	--	--
22S.19W.17.342 MALPAIS	81-09-08	--	9	--	--	--
22S.20W.18.411 HACKBERRY	81-08-17	--	59	--	--	--

HIDALGO COUNTY - concluded

LOCAL IDENT-I-FIER	DATE OF SAMPLE	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
22S.20W.23.142 ADOBE WIN	81-08-17	--	7	--	--	--
22S.20W.26.433 BOX M LAK	81-08-18	--	4	--	--	--
22S.21W.13.234	81-08-16	--	30	--	--	--
22S.21W.36.423 BUTTERFIE	81-08-18	--	330	--	--	--
23S.19W.07.242 FOX WINDM	81-08-18	--	250	--	--	--
23S.21W.13.441 ARSENIC W	81-09-06	40	20	.0	1	0
23S.21W.36.444 ROBINSON	81-08-18	--	3	--	--	--
26S.18W.34.432 OLD MAN P	81-09-09	--	3	--	--	--
27S.18W.05.334 PETERSON	81-09-09	--	3	--	--	--
27S.18W.12.220 HEWLITT W	81-09-09	--	10	--	--	--
27S.19W.23.114 MARVIN DA	81-09-09	--	54	--	--	--

LINCOLN COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)
09S.15E.16 GOUT SPRINGS	333115105282001	027	SP	81-08-14	1300	--	1500	6.8	19.0
09S.15E.20. FT. STANTO C	333030105293601	027	SP	81-08-14	1200	--	700	7.1	--
10S.14E.11.FT. STANTON M	332718105330601	027	GW	81-07-30	1400	--	3000	7.2	16.0
11S.20E.09 NUNEZ WELL	332209104572401	027	GW	81-08-11	0930	--	1400	7.4	19.0

LOCAL IDENT-I-FIER	DATE OF SAMPLE	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
09S.15E.16 GOUT SPRINGS	81-08-14	770	220	53	56	.9	2.1	190	560	96
09S.15E.20. FT. STANTO C	81-08-14	330	100	20	34	.9	1.7	120	220	34
10S.14E.11.FT. STANTON M	81-07-30	1600	440	130	150	1.6	4.2	170	980	500
11S.20E.09 NUNEZ WELL	81-08-11	740	200	58	39	.7	1.5	160	530	45

LOCAL IDENT-I-FIER	DATE OF SAMPLE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)
09S.15E.16 GOUT SPRINGS	81-08-14	.6	18	1190	1120	--	.22	0	70	40
09S.15E.20. FT. STANTO C	81-08-14	.6	19	488	504	--	.50	1	40	20
10S.14E.11.FT. STANTON M	81-07-30	.3	6.2	2490	2330	--	.03	0	100	50
11S.20E.09 NUNEZ WELL	81-08-11	.5	13	1080	988	1.0	.88	0	30	50

LOCAL IDENT-I-FIER	DATE OF SAMPLE	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
09S.15E.16 GOUT SPRINGS	81-08-14	<1	0	0	<10	2	3	.1	0	0
09S.15E.20. FT. STANTO C	81-08-14	<1	0	1	14	0	<1	.1	0	0
10S.14E.11.FT. STANTON M	81-07-30	0	10	1	12000	0	230	.1	0	0
11S.20E.09 NUNEZ WELL	81-08-11	<1	0	2	510	1	42	.0	1	0

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

LINCOLN COUNTY - continued

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)
09S.15E.16 GOUT SPRINGS	333115105282001	027	SP	81-08-14	1300	<30	1.5	<12	2.0
09S.15E.20. FT. STANTO C	333030105293601	027	SP	81-08-14	1200	<10	5800	<5.4	4300
10S.14E.11.FT. STANTON M	332718105330601	027	GW	81-07-30	1400	<58	1.8	<27	<1.3
11S.20E.09 NUNEZ WELL	332209104572401	027	GW	81-08-11	0930	<39	<.7	<20	<.8

LOCAL IDENT-I-FIER	DATE OF SAMPLE	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
09S.15E.16 GOUT SPRINGS	81-08-14	<12	1.9	2.3
09S.15E.20. FT. STANTO C	81-08-14	<5.2	4100	1.4
10S.14E.11.FT. STANTON M	81-07-30	<26	<1.3	2.4
11S.20E.09 NUNEZ WELL	81-08-11	<19	<.8	1.5

LUNA COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TUR-BID-ITY (NTU) (00076)
29S.06W.12.41114	314755107242401	029	GW	81-04-11	--	--	1350	7.8	.60

LOCAL IDENT-I-FIER	DATE OF SAMPLE	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM+ POTAS-SIUM DIS-SOLVED (MG/L AS NA) (00933)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
29S.06W.12.41114	81-04-11	160	37	17	760	430	750	420	4.2	38

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
29S.06W.12.41114	81-04-11	2510	1.00	.030	50

MCKINLEY COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)
16N.11W.33.332B.PASS.PM3	353406108005301	031	GW	81-07-22	1150	221WSRC	--	--	930
17N.12W.19.4314 NTUA 1	354104108090901	031	GW	81-07-15	1025	221WSRC	2345	6950.00	450
17N.12W.20.1111 NTUA 2	354143108083801	031	GW	81-07-14	1035	221WSRC	--	--	500
17N.12W.20.3313 BIA PM6	354105108091101	031	GW	81-07-14	1550	221WSRC	2500	6950.00	450
17N.12W.30.142 NO.3	354038108091801	031	GW	81-07-14	1325	211DKOT	--	--	680
17N.12W.30.3243	354017108091901	031	GW	81-07-14	1435	211DKOT	--	--	675

MCKINLEY COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
16N.11W.33.332B.PASS.PM3	81-07-22	7.9	30.0	26.0	72	19	6.0	200	10	4.7
17N.12W.19.4314 NTUA 1	81-07-15	7.9	23.0	33.0	17	4.7	1.2	110	12	1.5
17N.12W.20.1111 NTUA 2	81-07-14	8.5	26.0	36.0	6	2.4	.1	120	21	.9
17N.12W.20.3313 BIA PM6	81-07-14	8.1	27.0	35.5	7	2.4	.2	110	18	1.1
17N.12W.30.142 NO.3	81-07-14	8.0	24.0	28.0	44	11	4.1	150	9.8	2.3
17N.12W.30.3243	81-07-14	8.0	28.0	30.0	51	12	5.1	150	9.1	2.1

LOCAL IDENT-I-FIER	DATE OF SAMPLE	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
16N.11W.33.332B.PASS.PM3	81-07-22	200	.00	150	330	9.4	.2	19	679	.02
17N.12W.19.4314 NTUA 1	81-07-15	240	.00	190	62	3.5	.4	19	317	.12
17N.12W.20.1111 NTUA 2	81-07-14	250	2.0	200	58	4.4	.2	18	324	.02
17N.12W.20.3313 BIA PM6	81-07-14	240	.00	190	55	3.4	.2	18	305	.11
17N.12W.30.142 NO.3	81-07-14	270	.00	210	150	4.5	.3	17	466	.02
17N.12W.30.3243	81-07-14	280	.00	220	140	3.2	.6	19	465	.12

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
16N.11W.33.332B.PASS.PM3	81-07-22	1	30	2	0	1	310	0	20
17N.12W.19.4314 NTUA 1	81-07-15	1	70	<1	0	2	50	0	10
17N.12W.20.1111 NTUA 2	81-07-14	1	70	<1	0	4	20	4	8
17N.12W.20.3313 BIA PM6	81-07-14	1	90	<1	0	3	20	0	8
17N.12W.30.142 NO.3	81-07-14	0	50	<1	0	6	40	0	20
17N.12W.30.3243	81-07-14	0	50	<1	0	2	60	0	10

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
16N.11W.33.332B.PASS.PM3	81-07-22	.0	<10	0	0
17N.12W.19.4314 NTUA 1	81-07-15	.0	<10	0	0
17N.12W.20.1111 NTUA 2	81-07-14	.1	14	0	0
17N.12W.20.3313 BIA PM6	81-07-14	.0	<10	0	0
17N.12W.30.142 NO.3	81-07-14	.0	<10	0	0
17N.12W.30.3243	81-07-14	.0	<10	0	0

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)
16N.11W.33.332B.PASS.PM3	353406108005301	031	GW	81-07-22	1150	48	10	10	.27
17N.12W.19.4314 NTUA 1	354104108090901	031	GW	81-07-15	1025	<7.3	<3.5	<3.4	.24
17N.12W.20.1111 NTUA 2	354143108083801	031	GW	81-07-14	1035	<7.2	<3.8	<3.6	.07
17N.12W.20.3313 BIA PM6	354105108091101	031	GW	81-07-14	1550	<7.4	<3.3	<3.2	.11
17N.12W.30.142 NO.3	354038108091801	031	GW	81-07-14	1325	<11	<5.1	<5.0	.20
17N.12W.30.3243	354017108091901	031	GW	81-07-14	1435	<11	<4.9	<4.8	.24

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

MCKINLEY COUNTY - concluded

LOCAL IDENT-I-FIER	DATE OF SAMPLE	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L) (80020)
16N.11W.33.332B.PASS.PM3	81-07-22	23	--
17N.12W.19.4314 NTUA 1	81-07-15	--	.02
17N.12W.20.1111 NTUA 2	81-07-14	--	<.01
17N.12W.20.3313 BIA PM6	81-07-14	--	.02
17N.12W.30.142 NO.3	81-07-14	6.1	--
17N.12W.30.3243	81-07-14	--	.63

MORA COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	FLOW RATE, INSTAN-TANEOUS (GPM) (00059)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)
22N.18E.	360952104593001	033	GW	81-06-07	1206	--	1.0	600	7.8

LOCAL IDENT-I-FIER	DATE OF SAMPLE	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
22N.18E.	81-06-07	11.0	290	80	22	41	1.1	1.8	300	46

LOCAL IDENT-I-FIER	DATE OF SAMPLE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
22N.18E.	81-06-07	14	.3	21	410	.82	12	4

SAN JUAN COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)
NR032.0336X1582 COTTONWO	363113108333501	045	GW	81-03-13	1345	110AVMB	11	5195.00	2770
NR032.0407X1145 CHACO R	363503108342101	045	GW	81-03-13	1445	110AVMB	7.5	5130.00	1480
NR032.0505X0180 CHACO R	364325108353001	045	GW	81-03-13	1630	110AVMB	9.5	4980.00	2600
NR048.0898X1715 HUNTER W	361503108243801	045	GW	81-03-12	1030	110AVMB	8.0	5545.00	18800
NR049.0115X0950 BRIMHALL	362145108310901	045	GW	81-03-13	1230	110AVMB	8.1	5390.00	2120
NR049.0335X1618 CHACO R	361554108333201	045	GW	81-03-13	1100	110AVMB	1.2	5405.00	720
NR049.0367X0886 BURNHAM4	362217108335701	045	GW	81-03-12	1245	110AVMB	--	5325.00	5500
NR049.0380X0891 BURNHAM	362213108340501	045	GW	81-03-12	1400	110AVMB	9.5	5317.00	1000
NR049.0385X0894 BURNHAM	362212108340701	045	GW	81-03-12	1445	110AVMB	7.5	5319.00	1420
NR049.0391X0871 BURNHAM3	362208108341201	045	GW	81-03-12	1530	110AVMB	--	5325.00	7350
NR066.0668X0380 CHACO R.	361142108220401	045	GW	81-03-11	1730	110AVMB	8.0	5650.00	1190
21N.11W.07.242 CHACO R W	360415108022201	045	GW	81-03-18	1345	110AVMB	--	6018.00	950
22N.13W.24.3222A CHACO R	360733108103201	045	GW	81-03-09	1130	110AVMB	8.5	5880.00	949
22N.13W.24.342 LA VIDA1	360721108103201	045	GW	81-03-09	1430	211MENF	--	5865.00	1020
22N.13W.24.4131 1R WELL	360729108102901	045	GW	81-03-09	1545	110AVMB	--	--	1020
22N.13W.24.4133 2S WELL	360726108102801	045	GW	81-03-11	1430	110AVMB	--	--	882
23N.13W.17.334 DE-NA-ZIN	361318108151401	045	GW	81-03-11	1615	110AVMB	8.0	5780.00	1840

SAN JUAN COUNTY

LOCAL IDENT-I-FIER	DATE OF SAMPLE	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	ACIDITY (MG/L AS H) (71825)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
NR032.0336X1582 COTTONWO	81-03-13	7.3	11.5	10.5	.3	300	38	--	93	16
NR032.0407X1145 CHACO R	81-03-13	7.3	13.0	7.5	.7	200	0	--	61	11
NR032.0505X0180 CHACO R	81-03-13	7.6	9.0	8.0	.3	92	0	--	17	12
NR048.0898X1715 HUNTER W	81-03-12	7.3	9.5	8.5	6.3	2800	2200	--	510	370
NR049.0115X0950 BRIMHALL	81-03-13	7.6	13.0	6.5	1.2	280	0	--	97	9.8
NR049.0335X1618 CHACO R	81-03-13	7.4	10.0	8.0	.7	66	0	--	23	2.1
NR049.0367X0886 BURNHAM4	81-03-12	6.7	11.0	13.0	1.0	1400	--	2.0	430	78
NR049.0380X0891 BURNHAM	81-03-12	7.3	11.0	9.0	.3	100	0	--	35	4.2
NR049.0385X0894 BURNHAM	81-03-12	7.2	11.0	9.0	.3	100	0	--	33	4.4
NR049.0391X0871 BURNHAM3	81-03-12	7.1	11.0	11.5	.6	1000	670	--	310	59
NR066.0668X0380 CHACO R.	81-03-11	7.0	6.0	7.0	.7	73	0	--	25	2.6
21N.11W.07.242 CHACO R W	81-03-18	8.2	--	8.5	--	61	--	--	21	2.1
22N.13W.24.3222A CHACO R	81-03-09	9.1	14.0	7.5	.4	43	0	--	14	2.0
22N.13W.24.342 LA VIDA1	81-03-09	8.3	17.0	10.5	.4	42	0	--	12	2.9
22N.13W.24:4131 1R WELL	81-03-09	7.6	12.0	8.0	.4	100	0	--	34	3.8
22N.13W.24.4133 2S WELL	81-03-11	7.5	8.0	5.0	.7	110	0	--	37	5.1
23N.13W.17.334 DE-NA-ZIN	81-03-11	7.7	10.0	6.0	1.1	180	0	--	63	6.4

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	SULFIDE TOTAL (MG/L AS S) (00745)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
NR032.0336X1582 COTTONWO	81-03-13	540	14	3.4	260	--	1100	20	1.3	10
NR032.0407X1145 CHACO R	81-03-13	270	8.4	3.6	270	--	470	11	.6	11
NR032.0505X0180 CHACO R	81-03-13	500	23	3.4	180	--	920	67	1.8	6.6
NR048.0898X1715 HUNTER W	81-03-12	5000	41	12	640	--	13000	2.7	1.3	20
NR049.0115X0950 BRIMHALL	81-03-13	400	10	3.0	290	--	780	14	1.2	12
NR049.0335X1618 CHACO R	81-03-13	140	7.5	1.9	210	--	160	6.3	1.1	10
NR049.0367X0886 BURNHAM4	81-03-12	920	11	9.0	--	--	2900	12	1.5	28
NR049.0380X0891 BURNHAM	81-03-12	190	8.1	2.3	300	--	240	7.4	1.1	11
NR049.0385X0894 BURNHAM	81-03-12	290	13	2.3	380	--	340	10	1.7	12
NR049.0391X0871 BURNHAM3	81-03-12	1600	22	9.5	350	--	3700	20	1.0	16
NR066.0668X0380 CHACO R.	81-03-11	160	8.1	2.2	330	--	260	7.7	1.0	13
21N.11W.07.242 CHACO R W	81-03-18	190	11	1.5	--	1.1	190	5.2	.7	9.4
22N.13W.24.3222A CHACO R	81-03-09	220	15	1.8	320	--	200	7.4	.7	9.6
22N.13W.24.342 LA VIDA1	81-03-09	230	15	1.5	340	--	190	7.3	.8	13
22N.13W.24.4131 1R WELL	81-03-09	200	8.7	2.0	300	--	230	7.3	.8	12
22N.13W.24.4133 2S WELL	81-03-11	160	6.5	3.9	320	--	150	5.6	.4	13
23N.13W.17.334 DE-NA-ZIN	81-03-11	350	11	2.2	300	--	560	19	.7	10

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)
NR032.0336X1582 COTTONWO	81-03-13	1960	1950	--	--	--	1.4	.060	--	.60
NR032.0407X1145 CHACO R	81-03-13	992	1010	--	--	--	.00	.360	--	1.2
NR032.0505X0180 CHACO R	81-03-13	1660	1650	--	--	--	.00	1.00	--	.40
NR048.0898X1715 HUNTER W	81-03-12	19700	19300	--	--	.00	.01	.020	--	.98
NR049.0115X0950 BRIMHALL	81-03-13	1490	1500	--	--	1.0	.98	.000	--	.43
NR049.0335X1618 CHACO R	81-03-13	475	476	--	--	.00	.00	.050	--	.38
NR049.0367X0886 BURNHAM4	81-03-12	4680	--	--	--	.01	.03	1.10	--	.30
NR049.0380X0891 BURNHAM	81-03-12	656	683	--	--	--	.00	.530	--	.67
NR049.0385X0894 BURNHAM	81-03-12	914	936	--	--	--	.00	.360	--	.64
NR049.0391X0871 BURNHAM3	81-03-12	6200	5940	--	--	.00	.00	1.30	--	.40
NR066.0668X0380 CHACO R.	81-03-11	757	672	--	--	.00	.00	.250	--	.69
21N.11W.07.242 CHACO R W	81-03-18	549	--	.00	.000	--	.00	.110	.100	1.1
22N.13W.24.3222A CHACO R	81-03-09	614	649	--	--	--	.00	.110	--	.52
22N.13W.24.342 LA VIDA1	81-03-09	640	663	--	--	--	.00	.140	--	.76
22N.13W.24.4131 1R WELL	81-03-09	666	672	--	--	--	.00	.320	--	.25
22N.13W.24.4133 2S WELL	81-03-11	575	574	--	--	.00	.00	.510	--	.69
23N.13W.17.334 DE-NA-ZIN	81-03-11	1260	1210	--	--	3.1	3.0	.000	--	1.5

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SAN JUAN COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BERYLLIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)
NR032.0336X1582 COTTONWO	81-03-13	--	--	.020	--	1	0	100	1	0
NR032.0407X1145 CHACO R	81-03-13	--	--	.050	--	2	0	280	0	10
NR032.0505X0180 CHACO R	81-03-13	--	--	.160	--	2	0	2700	1	0
NR048.0898X1715 HUNTER W	81-03-12	--	1.0	.030	--	2	10	230	0	20
NR049.0115X0950 BRIMHALL	81-03-13	--	1.4	.020	--	1	0	50	0	0
NR049.0335X1618 CHACO R	81-03-13	--	.43	.040	--	1	<1	30	<1	0
NR049.0367X0886 BURNHAM4	81-03-12	--	1.4	.050	--	28	0	190	1	10
NR049.0380X0891 BURNHAM	81-03-12	--	--	.040	--	3	0	340	1	0
NR049.0385X0894 BURNHAM	81-03-12	--	--	.030	--	5	0	350	1	0
NR049.0391X0871 BURNHAM3	81-03-12	--	1.7	1.40	--	58	0	180	1	10
NR066.0668X0380 CHACO R.	81-03-11	--	.94	.020	--	1	<1	60	<1	0
21N.11W.07.242 CHACO R W	81-03-18	.23	--	.020	.000	2	<1	50	1	10
22N.13W.24.3222A CHACO R	81-03-09	--	--	.010	--	3	<1	90	<1	0
22N.13W.24.342 LA VIDAl	81-03-09	--	--	.000	--	3	<1	100	<1	10
22N.13W.24.4131 1R WELL	81-03-09	--	--	.000	--	3	<1	70	<1	0
22N.13W.24.4133 2S WELL	81-03-11	--	1.2	.050	--	8	<1	30	<1	0
23N.13W.17.334 DE-NA-ZIN	81-03-11	--	4.6	.040	--	1	<1	60	<1	0

LOCAL IDENT-I-FIER	DATE OF SAMPLE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)
NR032.0336X1582 COTTONWO	81-03-13	0	4400	0	120	.0	1	5
NR032.0407X1145 CHACO R	81-03-13	0	4300	2	1500	.0	1	1
NR032.0505X0180 CHACO R	81-03-13	3	4600	4	160	.0	0	2
NR048.0898X1715 HUNTER W	81-03-12	0	820	2	120	.0	1	0
NR049.0115X0950 BRIMHALL	81-03-13	0	100	0	230	.0	1	1
NR049.0335X1618 CHACO R	81-03-13	0	3900	2	470	.0	0	1
NR049.0367X0886 BURNHAM4	81-03-12	0	4500	3	2200	.0	2	0
NR049.0380X0891 BURNHAM	81-03-12	0	9500	0	900	.0	2	1
NR049.0385X0894 BURNHAM	81-03-12	0	13000	0	810	.0	0	1
NR049.0391X0871 BURNHAM3	81-03-12	0	9200	4	4100	.0	0	0
NR066.0668X0380 CHACO R.	81-03-11	0	200	0	1400	.0	1	0
21N.11W.07.242 CHACO R W	81-03-18	1	900	1	570	.2	42	0
22N.13W.24.3222A CHACO R	81-03-09	2	220	0	570	.0	1	0
22N.13W.24.342 LA VIDAl	81-03-09	2	400	0	350	.1	0	0
22N.13W.24.4131 1R WELL	81-03-09	2	160	0	1200	20	1	0
22N.13W.24.4133 2S WELL	81-03-11	0	4800	1	1500	.0	1	1
23N.13W.17.334 DE-NA-ZIN	81-03-11	0	10	2	20	.0	1	4

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)
NR032.0336X1582 COTTONWO	363113108333501	045	GW	81-03-13	1345	<34	<.4	<15	1.0
NR032.0407X1145 CHACO R	363503108342101	045	GW	81-03-13	1445	<14	.6	<6.9	.8
NR032.0505X0180 CHACO R	364325108353001	045	GW	81-03-13	1630	<22	<.4	<14	<.4
NR048.0898X1715 HUNTER W	361503108243801	045	GW	81-03-12	1030	<410	.9	<120	16
NR049.0115X0950 BRIMHALL	362145108310901	045	GW	81-03-13	1230	<25	<.4	<11	.6
NR049.0335X1618 CHACO R	361554108333201	045	GW	81-03-13	1100	<7.9	2.9	<3.4	1.4
NR049.0367X0886 BURNHAM4	362217108335701	045	GW	81-03-12	1245	<83	1.7	<33	2.0
NR049.0380X0891 BURNHAM	362213108340501	045	GW	81-03-12	1400	<8.9	<.5	<4.6	<.4
NR049.0385X0894 BURNHAM	362212108340701	045	GW	81-03-12	1445	<16	<.4	<6.6	<.4
NR049.0391X0871 BURNHAM3	362208108341201	045	GW	81-03-12	1530	<100	2.2	<44	1.8
NR066.0668X0380 CHACO R.	361142108220401	045	GW	81-03-11	1730	13	.4	<5.5	<.5
21N.11W.07.242 CHACO R W	360415108022201	045	GW	81-03-18	1345	<12	--	<5.1	--
22N.13W.24.3222A CHACO R	360733108103201	045	GW	81-03-09	1130	<9.6	2.1	<4.6	1.1
22N.13W.24.342 LA VIDAl	360721108103201	045	GW	81-03-09	1430	<11	<.4	<4.9	<.4
22N.13W.24.4131 1R WELL	360729108102901	045	GW	81-03-09	1545	<10	2.4	<5.2	1.8
22N.13W.24.4133 2S WELL	360726108102801	045	GW	81-03-11	1430	<7.8	1.5	<4.1	1.2
23N.13W.17.334 DE-NA-ZIN	361318108151401	045	GW	81-03-11	1615	<19	<.4	<8.7	<.4

SAN JUAN COUNTY - concluded

LOCAL IDENT-I-FIER	DATE OF SAMPLE	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L) (80020)
NR032.0336X1582 COTTONWO	81-03-13	<14	1.0	.05	8.6	--
NR032.0407X1145 CHACO R	81-03-13	<6.7	.8	.08	--	4.3
NR032.0505X0180 CHACO R	81-03-13	<13	<.4	.05	--	.18
NR048.0898X1715 HUNTER W	81-03-12	<110	16	.08	228	--
NR049.0115X0950 BRIMHALL	81-03-13	<10	.7	.04	15	--
NR049.0335X1618 CHACO R	81-03-13	<3.4	1.4	.05	1.7	--
NR049.0367X0886 BURNHAM4	81-03-12	<32	1.9	.11	--	1.8
NR049.0380X0891 BURNHAM	81-03-12	<4.4	<.4	.03	--	.30
NR049.0385X0894 BURNHAM	81-03-12	<6.4	<.4	.22	--	.82
NR049.0391X0871 BURNHAM3	81-03-12	<42	1.7	.13	--	2.9
NR066.0668X0380 CHACO R.	81-03-11	<5.4	<.5	.07	2.0	--
21N.11W.07.242 CHACO R W	81-03-18	<4.9	--	.08	--	--
22N.13W.24.3222A CHACO R	81-03-09	<4.5	1.1	.08	--	.61
22N.13W.24.342 LA VIDA1	81-03-09	<4.7	<.4	.06	--	.67
22N.13W.24.4131 1R WELL	81-03-09	<5.0	1.7	.32	--	.79
22N.13W.24.4133 2S WELL	81-03-11	<4.0	1.2	.20	--	.68
23N.13W.17.334 DE-NA-ZIN	81-03-11	<8.4	<.4	.03	10	--

SIERRA COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH TO BOT-TOM OF WATER-BEARING ZONE (FT) (72003)	DEPTH TO TOP OF WATER-BEARING ZONE (FT) (72002)
11S.05W.36.1222	331902107182701	051	GW	81-02-10	1800	112SNTF	45.40	--	--
12S.03W.07.23344	331654107110201	051	GW	81-02-10	1130	112SNTF	49.40	--	--
12S.04W.03.2213	331808107135601	051	GW	81-02-13	1120	112SNTF	104.00	--	--
12S.05W.28.3222	331412107213501	051	GW	81-02-11	1530	112SNTF	48.50	--	--
12S.05W.29.1411	331424107224701	051	GW	81-02-11	1700	112SNTF	54.00	--	--
12S.05W.29.1412	331419107225701	051	GW	81-02-11	1620	112SNTF	54.20	--	--
13S.04W.02.431	331216107131701	051	GW	81-02-10	1600	112SNTF	120.00	--	--
14S.04W.19.334	330415107173901	051	GW	81-02-12	1620	112SNTF	50.00	--	--
14S.05W.16.2413	330537107211201	051	GW	81-02-12	1100	112SNTF	28.30	--	--
14S.05W.23.4444	330414107185801	051	GW	81-02-12	0940	110AVMB	24.00	--	--
15S.05W.01.4314	330143107181901	051	GW	81-02-13	0950	112SNTF	81.90	205	83

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET) (72008)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE, INSTAN-TANEOUS (GPM) (00059)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
11S.05W.36.1222	81-02-10	--	5	50	--	4450	7.4	21.5	530	370
12S.03W.07.23344	81-02-10	--	10	--	--	1090	8.1	17.5	130	0
12S.04W.03.2213	81-02-13	--	2	--	--	3420	7.2	18.5	600	410
12S.05W.28.3222	81-02-11	--	2	--	--	380	7.9	20.0	120	0
12S.05W.29.1411	81-02-11	--	2	--	--	1750	7.4	11.0	420	210
12S.05W.29.1412	81-02-11	--	2	154	--	1990	7.3	19.0	470	260
13S.04W.02.431	81-02-10	--	--	401	--	840	8.2	23.5	57	0
14S.04W.19.334	81-02-12	--	1440	--	.5	1280	7.3	21.5	370	160
14S.05W.16.2413	81-02-12	--	--	--	--	920	7.1	8.0	250	53
14S.05W.23.4444	81-02-12	50	5	--	--	1090	7.1	18.0	270	73
15S.05W.01.4314	81-02-13	205	1	--	--	920	7.6	17.5	240	51

SIERRA COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
11S.05W.36.1222	81-02-10	200	6.9	620	12	50	164	150	76	1300
12S.03W.07.23344	81-02-10	45	5.2	190	7.1	3.5	189	130	240	130
12S.04W.03.2213	81-02-13	220	13	420	7.4	25	189	170	98	1000
12S.05W.28.3222	81-02-11	42	4.5	31	1.2	3.1	156	140	17	4.7
12S.05W.29.1411	81-02-11	140	17	220	4.7	7.6	213	210	83	420
12S.05W.29.1412	81-02-11	160	18	240	4.8	8.4	213	210	91	460
13S.04W.02.431	81-02-10	20	1.6	150	8.7	10	156	150	180	40
14S.04W.19.334	81-02-12	120	17	130	2.9	7.7	213	200	40	280
14S.05W.16.2413	81-02-12	82	11	110	3.0	6.9	197	190	34	190
14S.05W.23.4444	81-02-12	89	12	110	2.9	7.0	197	200	38	210
15S.05W.01.4314	81-02-13	75	13	96	2.7	7.7	189	180	26	190

LOCAL IDENT-I-FIER	DATE OF SAMPLE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)
11S.05W.36.1222	81-02-10	2.3	49	--	2400	.89	3	200	210	1
12S.03W.07.23344	81-02-10	1.9	32	--	733	1.5	--	--	330	--
12S.04W.03.2213	81-02-13	2.0	43	--	1930	.70	2	300	160	0
12S.05W.28.3222	81-02-11	2.2	30	195	238	4.4	--	--	10	--
12S.05W.29.1411	81-02-11	.8	33	--	1080	7.7	--	--	60	--
12S.05W.29.1412	81-02-11	.7	33	--	1180	9.1	--	--	60	--
13S.04W.02.431	81-02-10	2.8	43	--	538	.15	12	30	30	<1
14S.04W.19.334	81-02-12	.4	36	--	756	1.1	--	--	20	--
14S.05W.16.2413	81-02-12	.6	36	--	588	.67	--	--	10	--
14S.05W.23.4444	81-02-12	.6	36	--	627	.85	--	--	20	--
15S.05W.01.4314	81-02-13	.7	51	--	569	.21	--	--	30	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
11S.05W.36.1222	81-02-10	10	1	30	0	10	.1	0	0
12S.03W.07.23344	81-02-10	--	--	40	--	5	--	--	--
12S.04W.03.2213	81-02-13	10	6	70	1	10	.1	1	0
12S.05W.28.3222	81-02-11	--	--	20	--	1	--	--	--
12S.05W.29.1411	81-02-11	--	--	30	--	9	--	--	--
12S.05W.29.1412	81-02-11	--	--	100	--	7	--	--	--
13S.04W.02.431	81-02-10	0	3	50	0	3	.1	0	0
14S.04W.19.334	81-02-12	--	--	20	--	3	--	--	--
14S.05W.16.2413	81-02-12	--	--	30	--	3	--	--	--
14S.05W.23.4444	81-02-12	--	--	90	--	3	--	--	--
15S.05W.01.4314	81-02-13	--	--	20	--	3	--	--	--

SOCORRO COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH TO BOT-TOM OF WATER-BEARING ZONE (FT) (72003)	DEPTH TO TOP OF WATER-BEARING ZONE (FT) (72002)
01N.03W.07.342 CARBON SP	341917107113901	053	SP	80-12-05	1010	--	--	--	--
02N.07W.34.212 BACA HOME	342137107332001	053	GW	81-06-02	1200	110AVMB	57.64	--	--
02N.08W.10.441 MARTIN WE	342428107392701	053	GW	81-06-02	1115	110AVMB	39.95	--	--
02S.01E.23.331 OJO DEL C	340706106490301	053	SP	81-05-04	1007	120DTILC	--	--	--
		053	SP	81-09-08	1053	120DTILC	--	--	--
02S.01E.26.123	340646106485101	053	SP	81-05-04	1100	112SNTF	--	--	--
		053	SP	81-09-08	0945	112SNTF	--	--	--
02S.01E.27.243 OJO DE AM	340629106491701	053	SP	80-10-14	1415	325MDER	--	--	--
		053	SP	81-05-04	0902	325MDER	--	--	--
		053	SP	81-09-08	0843	325MDER	--	--	--

SOCORRO COUNTY - continued

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH TO BOT-TOM OF WATER-BEARING ZONE (FT) (72003)	DEPTH TO TOP OF WATER-BEARING ZONE (FT) (72002)
02S.01W.10.221 LEWARK WE	340927106553501	053	GW	80-10-01	0930	110PTOD	--	--	--
		053	GW	81-05-07	0730	110PTOD	--	--	--
02S.01W.11.243 SIDWELL W	340906106540601	053	GW	80-10-06	0955	110AVMB	--	--	--
02S.01W.36.1434 LUCAS GA	340534106535401	053	GW	80-10-30	0937	110AVMB	--	--	--
02S.01W.36.323 SAAVEDRA	340525106535901	053	GW	80-10-30	1026	110AVMB	--	--	--
02S.02E.23.241 BUSTOS WE	340727106415401	053	SP	81-08-14	0936	--	--	--	--
02S.02E.30.234 OJO DEL R	340630106460701	053	SP	81-05-04	1240	325MDER	--	--	--
		053	SP	81-09-08	1015	325MDER	--	--	--
03N.02W.26.112	342742107012601	053	GW	81-05-15	1303	110PTOD	--	--	--
03N.03W.12.313	342947107064901	053	GW	81-03-18	1545	110PTOD	--	--	--
03N.03W.25.412 BOUNDARY	342717107060201	053	SP	80-12-22	1030	--	--	--	--
03N.03W.36.344 SECT 25 S	342605107063001	053	SP	80-12-22	1220	--	--	--	--
03N.05W.08.342 BILL DOBB	342943107230401	053	GW	81-06-04	1045	231CHNL	--	--	--
03N.07W.19.221 HEADQUART	342821107362401	053	GW	81-05-20	1640	211CRVC	--	--	--
03N.08W.10.243 WATSON WI	343003107392701	053	GW	81-05-20	1510	110AVMB	75.02	--	--
03N.08W.36.441 BLUE WIND	342615107372101	053	GW	81-06-03	1130	110AVMB	29.29	--	--
03S.01W.12.332 BLM-SOCOR	340334106540201	053	GW	80-10-01	1130	--	--	--	--
03S.01W.15.131 SMITH WEL	340306106562001	053	GW	81-08-27	1325	--	250.00	--	--
03S.01W.36.113 BURRIS WE	340040106541101	053	GW	80-10-22	1027	110PTOD	--	--	--
03S.02E.08.422 TREMENTIN	340344106445701	053	SP	81-02-27	1445	310YESO	--	--	--
03S.02E.19.314 OJO DE LA	340152106463801	053	SP	81-05-04	1343	112SNTF	--	--	--
03S.02E.31.11 OWL WELL	340040106464601	053	GW	81-03-26	1420	313SADG	448.00	--	--
03S.03E.05.2132 BUSTOS W	340500106390101	053	GW	81-03-20	0930	231CHNL	--	--	--
03S.06E.05.422 C P WILSO	340438106195701	053	GW	80-10-31	1145	--	--	--	--
04N.05W.17.331 TIN CAN W	343403107233201	053	GW	81-06-04	1145	110AVMB	21.00	--	--
04N.06W.15.424 PINO PLAC	343410107263801	053	SP	81-04-06	1430	231CHNL	0.00	--	--
04N.06W.26.312 DOG HOLE	343233107262801	053	GW	81-06-04	1545	231CHNL	--	--	--
04N.06W.32.214 FLOWING W	343158107290801	053	GW	81-06-05	1000	310YESO	0.00	--	--
04N.07W.20.221 VICTORINO	343350107352101	053	GW	81-05-19	1200	210MCDK	47.24	--	--
04N.07W.31.333 31 WINDMI	343122107370401	053	GW	81-05-20	1340	120DTIL	--	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE, INSTAN-TANEOUS (GPM) (00059)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)
01N.03W.07.342 CARBON SP	80-12-05	--	--	--	--	--	590	8.0	8.0	240
02N.07W.34.212 BACA HOME	81-06-02	90	6765.00	--	90	--	560	7.8	--	180
02N.08W.10.441 MARTIN WE	81-06-02	46	6550.00	--	46	2.0	550	7.9	21.0	190
02S.01E.23.331 OJO DEL C	81-05-04	--	--	--	--	--	4250	7.5	15.0	--
	81-09-08	--	--	--	--	--	--	--	17.5	--
02S.01E.26.123	81-05-04	--	--	--	--	--	1760	7.3	15.0	--
	81-09-08	--	--	--	--	--	--	--	17.0	--
02S.01E.27.243 OJO DE AM	80-10-14	--	--	--	--	--	526	--	23.0	--
	81-05-04	--	--	--	--	--	297	8.1	15.0	--
	81-09-08	--	--	--	--	--	--	--	18.5	--
02S.01W.10.221 LEWARK WE	80-10-01	--	--	--	210	--	820	8.2	20.0	370
	81-05-07	--	--	--	210	--	868	7.8	16.0	--
02S.01W.11.243 SIDWELL W	80-10-06	--	--	--	50	--	2690	8.2	15.0	920
02S.01W.36.1434 LUCAS GA	80-10-30	--	--	--	109	--	430	8.3	14.5	130
02S.01W.36.323 SAAVEDRA	80-10-30	--	--	--	96	--	435	8.2	16.0	140
02S.02E.23.241 BUSTOS WE	81-08-14	--	--	--	315	--	754	7.8	18.0	320
02S.02E.30.234 OJO DEL R	81-05-04	--	--	--	--	--	191	8.1	21.0	--
	81-09-08	--	--	--	--	--	--	--	17.5	--
03N.02W.26.112	81-05-15	--	--	--	--	--	820	8.6	22.0	12
03N.03W.12.313	81-03-18	--	--	--	--	--	1850	8.1	18.5	730
03N.03W.25.412 BOUNDARY	80-12-22	--	--	--	--	--	478	7.9	7.5	230
03N.03W.36.344 SECT 25 S	80-12-22	--	--	--	--	--	402	7.3	8.0	180
03N.05W.08.342 BILL DOBB	81-06-04	--	5866.00	--	--	2.0	3700	7.7	16.5	260
03N.07W.19.221 HEADQUART	81-05-20	--	6380.00	--	--	--	1350	8.1	18.5	49
03N.08W.10.243 WATSON WI	81-05-20	136	6470.00	840	136	5.3	3590	8.4	16.0	62

SOCORRO COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE, INSTAN-TANEOUS (GPM) (00059)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)
03N.08W.36.441 BLUE WIND	81-06-03	42	6480.00	--	41	--	500	7.8	--	170
03S.01W.12.332 BLM-SOCOR	80-10-01	--	--	--	--	--	404	8.1	25.0	84
03S.01W.15.131 SMITH WEL	81-08-27	--	--	--	300	--	--	--	--	120
03S.01W.36.113 BURRIS WE	80-10-22	--	--	--	185	--	508	8.1	21.5	120
03S.02E.08.422 TREMENTIN	81-02-27	--	--	--	--	--	3500	7.8	9.0	2100
03S.02E.19.314 OJO DE LA	81-05-04	--	--	--	--	--	2800	8.0	24.0	--
03S.02E.31.11 OWL WELL	81-03-26	--	--	--	603	--	2370	7.9	20.0	1400
03S.03E.05.2132 BUSTOS W	81-03-20	--	--	--	315	--	--	--	14.5	--
03S.06E.05.422 C P WILSO	80-10-31	--	--	--	--	--	2990	8.0	16.0	2200
04N.05W.17.331 TIN CAN W	81-06-04	24	6030.00	--	24	4.0	1500	7.8	17.0	160
04N.06W.15.424 PINO PLAC	81-04-06	--	6050.00	--	--	E9.0	800	7.5	17.0	93
04N.06W.26.312 DOG HOLE	81-06-04	--	5980.00	--	--	E.5	1700	9.1	16.0	23
04N.06W.32.214 FLOWING W	81-06-05	1997	6155.00	--	2000	E15	3500	7.4	26.0	2200
04N.07W.20.221 VICTORINO	81-05-19	110	6550.00	300	110	6.0	3000	7.3	13.5	1800
04N.07W.31.333 31 WINDMI	81-05-20	--	6719.00	--	--	3.0	434	7.8	17.0	160

LOCAL IDENT-I-FIER	DATE OF SAMPLE	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
01N.03W.07.342 CARBON SP	80-12-05	0	55	26	39	1.1	1.6	--	260	34
02N.07W.34.212 BACA HOME	81-06-02	--	47	15	60	2.0	1.0	--	230	29
02N.08W.10.441 MARTIN WE	81-06-02	--	48	16	50	1.6	.6	--	240	--
02S.01E.23.331 OJO DEL C	81-05-04	--	--	--	--	--	--	--	--	--
	81-09-08	--	--	--	--	--	--	--	--	--
02S.01E.26.123	81-05-04	--	--	--	--	--	--	--	--	--
	81-09-08	--	--	--	--	--	--	--	--	--
02S.01E.27.243 OJO DE AM	80-10-14	--	--	--	--	--	--	--	--	--
	81-05-04	--	--	--	--	--	--	--	--	--
	81-09-08	--	--	--	--	--	--	--	--	--
02S.01W.10.221 LEWARK WE	80-10-01	120	110	24	39	.9	4.9	--	250	88
	81-05-07	--	--	--	--	--	--	--	--	--
02S.01W.11.243 SIDWELL W	80-10-06	540	290	47	290	4.2	9.8	--	380	720
02S.01W.36.1434 LUCAS GA	80-10-30	0	39	7.8	37	1.4	2.9	130	--	67
02S.01W.36.323 SAAVEDRA	80-10-30	0	42	7.9	38	1.4	2.9	140	--	56
02S.02E.23.241 BUSTOS WE	81-08-14	--	50	47	38	1.1	4.6	--	230	140
02S.02E.30.234 OJO DEL R	81-05-04	--	--	--	--	--	--	--	--	--
	81-09-08	--	--	--	--	--	--	--	--	--
03N.02W.26.112	81-05-15	--	3.1	.9	190	24	.8	--	320	81
03N.03W.12.313	81-03-18	--	200	57	200	3.2	3.7	--	100	1000
03N.03W.25.412 BOUNDARY	80-12-22	12	68	15	19	.5	2.5	--	220	35
03N.03W.36.344 SECT 25 S	80-12-22	14	54	12	19	.6	1.3	--	170	33
03N.05W.08.342 BILL DOBB	81-06-04	--	72	20	900	24	2.0	--	420	1600
03N.07W.19.221 HEADQUART	81-05-20	--	15	2.7	280	17	1.9	--	260	320
03N.08W.10.243 WATSON WI	81-05-20	--	10	8.9	850	47	3.6	--	700	1100
03N.08W.36.441 BLUE WIND	81-06-03	--	48	12	53	1.8	.3	--	220	35
03S.01W.12.332 BLM-SOCOR	80-10-01	0	26	4.7	58	2.8	3.1	130	--	42
03S.01W.15.131 SMITH WEL	81-08-27	--	37	6.8	73	3.0	4.1	--	210	43
03S.01W.36.113 BURRIS WE	80-10-22	0	41	4.9	76	3.0	7.5	--	210	42
03S.02E.08.422 TREMENTIN	81-02-27	1900	530	180	89	.9	5.9	--	170	2000
03S.02E.19.314 OJO DE LA	81-05-04	--	--	--	--	--	--	--	--	--
03S.02E.31.11 OWL WELL	81-03-26	--	290	160	160	1.9	6.2	--	26	1600
03S.03E.05.2132 BUSTOS W	81-03-20	--	--	--	--	--	--	--	--	--
03S.06E.05.422 C P WILSO	80-10-31	2000	520	210	62	.6	8.8	--	140	2000
04N.05W.17.331 TIN CAN W	81-06-04	--	44	11	310	11	.9	--	270	510
04N.06W.15.424 PINO PLAC	81-04-06	--	21	9.8	140	6.3	2.4	--	260	81
04N.06W.26.312 DOG HOLE	81-06-04	--	5.9	1.9	390	36	.4	--	370	370
04N.06W.32.214 FLOWING W	81-06-05	--	700	100	230	2.2	23	--	350	2000
04N.07W.20.221 VICTORINO	81-05-19	--	400	190	140	1.4	3.8	--	190	1600
04N.07W.31.333 31 WINDMI	81-05-20	--	37	16	34	1.2	3.3	--	160	43

SOCORRO COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)
01N.03W.07.342 CARBON SP	80-12-05	27	.6	34	384	374	--	.01	2	100
02N.07W.34.212 BACA HOME	81-06-02	23	.6	36	--	381	--	7.0	--	--
02N.08W.10.441 MARTIN WE	81-06-02	11	.6	40	--	--	--	1.2	--	--
02S.01E.23.331 OJO DEL C	81-05-04	--	--	--	--	--	--	--	--	--
	81-09-08	--	--	--	--	--	--	--	--	--
02S.01E.26.123	81-05-04	--	--	--	--	--	--	--	--	--
	81-09-08	--	--	--	--	--	--	--	--	--
02S.01E.27.243 OJO DE AM	80-10-14	--	--	--	--	--	--	--	--	--
	81-05-04	--	--	--	--	--	--	--	--	--
	81-09-08	--	--	--	--	--	--	--	--	--
02S.01W.10.221 LEWARK WE	80-10-01	90	.3	29	558	536	--	.01	23	100
	81-05-07	--	--	--	--	--	--	--	--	--
02S.01W.11.243 SIDWELL W	80-10-06	320	.3	28	1900	1940	--	.00	13	200
02S.01W.36.1434 LUCAS GA	80-10-30	17	.5	28	272	278	--	.00	5	70
02S.01W.36.323 SAAVEDRA	80-10-30	18	.4	29	274	279	--	.01	7	60
02S.02E.23.241 BUSTOS WE	81-08-14	18	.3	23	454	469	--	2.1	3	50
02S.02E.30.234 OJO DEL R	81-05-04	--	--	--	--	--	--	--	--	--
	81-09-08	--	--	--	--	--	--	--	--	--
03N.02W.26.112	81-05-15	21	1.0	36	--	527	--	.11	3	200
03N.03W.12.313	81-03-18	13	1.0	17	1640	1550	--	.11	3	0
03N.03W.25.412 BOUNDARY	80-12-22	6.9	1.3	26	324	307	--	.19	0	30
03N.03W.36.344 SECT 25 S	80-12-22	12	1.8	29	270	265	--	.12	0	30
03N.05W.08.342 BILL DOBB	81-06-04	64	.9	9.3	--	2920	--	.01	--	--
03N.07W.19.221 HEADQUART	81-05-20	30	2.6	11	--	821	--	.07	--	--
03N.08W.10.243 WATSON WI	81-05-20	25	.6	11	--	2430	--	.41	--	--
03N.08W.36.441 BLUE WIND	81-06-03	10	.6	37	--	348	--	4.4	--	--
03S.01W.12.332 BLM-SOCOR	80-10-01	15	.6	27	260	257	--	.42	37	90
03S.01W.15.131 SMITH WEL	81-08-27	16	1.0	38	337	347	--	.24	35	68
03S.01W.36.113 BURRIS WE	80-10-22	16	.8	51	371	367	--	.09	6	60
03S.02E.08.422 TREMENTIN	81-02-27	41	.4	19	3280	2970	--	.00	1	100
03S.02E.19.314 OJO DE LA	81-05-04	--	--	--	--	--	--	--	--	--
03S.02E.31.11 OWL WELL	81-03-26	20	.2	1.4	2380	2260	--	.17	1	100
03S.03E.05.2132 BUSTOS W	81-03-20	--	--	--	--	--	--	--	--	--
03S.06E.05.422 C P WILSO	80-10-31	39	1.3	5.0	3190	2930	--	.00	0	0
04N.05W.17.331 TIN CAN W	81-06-04	13	.8	12	--	1060	--	.00	--	--
04N.06W.15.424 PINO PLAC	81-04-06	41	.8	27	--	488	--	2.0	--	--
04N.06W.26.312 DOG HOLE	81-06-04	100	.8	16	--	1110	--	.28	--	--
04N.06W.32.214 FLOWING W	81-06-05	140	2.4	13	--	3420	--	.03	--	--
04N.07W.20.221 VICTORINO	81-05-19	19	.4	12	--	2510	--	5.8	--	--
04N.07W.31.333 31 WINDMI	81-05-20	9.2	.5	23	--	267	--	1.1	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
01N.03W.07.342 CARBON SP	80-12-05	100	<1	0	0	<10	2
02N.07W.34.212 BACA HOME	81-06-02	210	--	--	--	20	--
02N.08W.10.441 MARTIN WE	81-06-02	210	--	--	--	<10	--
02S.01E.23.331 OJO DEL C	81-05-04	--	--	--	--	--	--
	81-09-08	--	--	--	--	--	--
02S.01E.26.123	81-05-04	--	--	--	--	--	--
	81-09-08	--	--	--	--	--	--
02S.01E.27.243 OJO DE AM	80-10-14	--	--	--	--	--	--
	81-05-04	--	--	--	--	--	--
	81-09-08	--	--	--	--	--	--
02S.01W.10.221 LEWARK WE	80-10-01	50	<1	0	1	20	2
	81-05-07	--	--	--	--	--	--
02S.01W.11.243 SIDWELL W	80-10-06	330	0	40	2	500	0
02S.01W.36.1434 LUCAS GA	80-10-30	100	<1	0	2	30	2
02S.01W.36.323 SAAVEDRA	80-10-30	90	1	0	14	10	2

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SOCORRO COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
02S.02E.23.241 BUSTOS WE	81-08-14	40	<1	0	2	<10	2
02S.02E.30.234 OJO DEL R	81-05-04	--	--	--	--	--	--
	81-09-08	--	--	--	--	--	--
03N.02W.26.112	81-05-15	--	<1	0	2	20	1
03N.03W.12.313	81-03-18	510	0	20	0	590	0
03N.03W.25.412 BOUNDARY	80-12-22	10	<1	0	0	<10	2
03N.03W.36.344 SECT 25 S	80-12-22	10	<1	0	0	<10	2
03N.05W.08.342 BILL DOBB	81-06-04	990	--	--	--	210	--
03N.07W.19.221 HEADQUART	81-05-20	590	--	--	--	70	--
03N.08W.10.243 WATSON WI	81-05-20	840	--	--	--	120	--
03N.08W.36.441 BLUE WIND	81-06-03	50	--	--	--	10	--
03S.01W.12.332 BLM-SOCOR	80-10-01	70	<1	20	6	<10	2
03S.01W.15.131 SMITH WEL	81-08-27	110	<1	0	1	<10	5
03S.01W.36.113 BURRIS WE	80-10-22	130	<.1	0	7	30	1
03S.02E.08.422 TREMENTIN	81-02-27	300	0	10	2	40	0
03S.02E.19.314 OJO DE LA	81-05-04	--	--	--	--	--	--
03S.02E.31.11 OWL WELL	81-03-26	140	3	20	0	40	3
03S.03E.05.2132 BUSTOS W	81-03-20	--	--	--	--	--	--
03S.06E.05.422 C P WILSO	80-10-31	320	0	0	2	30	4
04N.05W.17.331 TIN CAN W	81-06-04	610	--	--	--	20	--
04N.06W.15.424 PINO PLAC	81-04-06	180	--	--	--	40	--
04N.06W.26.312 DOG HOLE	81-06-04	730	--	--	--	240	--
04N.06W.32.214 FLOWING W	81-06-05	730	--	--	--	3400	--
04N.07W.20.221 VICTORINO	81-05-19	240	--	--	--	180	--
04N.07W.31.333 31 WINDMI	81-05-20	110	--	--	--	80	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
01N.03W.07.342 CARBON SP	80-12-05	90	.0	0	0
02N.07W.34.212 BACA HOMF	81-06-02	3	--	--	--
02N.08W.10.441 MARTIN WE	81-06-02	1	--	--	--
02S.01E.23.331 OJO DEL C	81-05-04	--	--	--	--
	81-09-08	--	--	--	--
02S.01E.26.123	81-05-04	--	--	--	--
	81-09-08	--	--	--	--
02S.01E.27.243 OJO DE AM	80-10-14	--	--	--	--
	81-05-04	--	--	--	--
	81-09-08	--	--	--	--
02S.01W.10.221 LEWARK WE	80-10-01	300	.0	5	0
	81-05-07	--	--	--	--
02S.01W.11.243 SIDWELL W	80-10-06	3500	.0	0	0
02S.01W.36.1434 LUCAS GA	80-10-30	30	.0	0	0
02S.01W.36.323 SAAVEDRA	80-10-30	2	.0	2	0
02S.02E.23.241 BUSTOS WE	81-08-14	5	.0	4	0
02S.02E.30.234 OJO DEL R	81-05-04	--	--	--	--
	81-09-08	--	--	--	--
03N.02W.26.112	81-05-15	6	.1	0	0
03N.03W.12.313	81-03-18	60	.0	0	0
03N.03W.25.412 BOUNDARY	80-12-22	9	.0	1	0
03N.03W.36.344 SECT 25 S	80-12-22	1	.0	1	0
03N.05W.08.342 BILL DOBB	81-06-04	20	--	--	--
03N.07W.19.221 HEADQUART	81-05-20	20	--	--	--
03N.08W.10.243 WATSON WI	81-05-20	30	--	--	--
03N.08W.36.441 BLUE WIND	81-06-03	3	--	--	--
03S.01W.12.332 BLM-SOCOR	80-10-01	20	.0	1	0
03S.01W.15.131 SMITH WEL	81-08-27	5	.0	1	0
03S.01W.36.113 BURRIS WE	80-10-22	20	.0	2	0
03S.02E.08.422 TREMENTIN	81-02-27	10	.0	0	0

SOCORRO COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
03S.02E.19.314 OJO DE LA	81-05-04	--	--	--	--
03S.02E.31.11 OWL WELL	81-03-26	80	.0	2	0
03S.03E.05.2132 BUSTOS W	81-03-20	--	--	--	--
03S.06E.05.422 C P WILSO	80-10-31	130	.0	0	0
04N.05W.17.331 TIN CAN W	81-06-04	3	--	--	--
04N.06W.15.424 PINO PLAC	81-04-06	4	--	--	--
04N.06W.26.312 DOG HOLE	81-06-04	10	--	--	--
04N.06W.32.214 FLOWING W	81-06-05	240	--	--	--
04N.07W.20.221 VICTORINO	81-05-19	20	--	--	--
04N.07W.31.333 31 WINDMI	81-05-20	6	--	--	--

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH TO BOT-TOM OF WATER-BEARING ZONE (FT) (72003)	DEPTH TO TOP OF WATER-BEARING ZONE (FT) (72002)
04N.07W.33.412 TURNER WE	343142107342601	053	GW	81-05-20	1130	211MVRD	20.29	--	--
04N.08W.23.443A CARR WIN	343308107382301	053	GW	81-05-19	1400	211MVRD	200.53	--	--
04S.01E.08.244 FAZIO WEL	335837106511101	053	GW	81-08-26	0957	110AVMB	--	--	--
04S.01E.08.422 FAZIO-KEN	335829106511101	053	GW	81-08-26	0918	110AVMB	--	--	--
04S.01E.08.422 FAZIO-KEN	335829106511601	053	GW	81-08-26	0925	110AVMB	--	--	--
04S.01E.29.424 RANCHO AL	335549106511801	053	GW	80-10-20	1516	110AVMB	--	--	--
04S.01W.12.443 KNOBLOCK	335815106532601	053	GW	80-11-21	1315	110PTOD	--	--	--
04S.01W.22.112 MCA WELL	335331106561201	053	GW	81-08-14	1403	--	480.00	480	570
04S.02W.24.431 MIERA WEL	335634106595201	053	GW	81-01-06	1007	110PTOD	--	--	--
05S.02W.05.321	335415107042901	053	GW	81-08-21	1444	--	--	--	--
05S.02W.08.144 TORREON S	335325107041501	053	SP	81-04-17	0850	--	--	--	--
06S.03E.05.232 SRC-1	334908106390801	053	GW	81-03-09	1200	--	--	--	--
		053	GW	81-08-03	1300	--	--	--	--
06S.03E.05.234 SRC-2	334907106391201	053	GW	81-03-09	1200	--	--	--	--
		053	GW	81-08-03	1200	--	--	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE, INSTAN-TANEOUS (GPM) (00059)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)
04N.07W.33.412 TURNER WE	81-05-20	71	6447.00	600	71	7.2	1750	7.8	12.0	260
04N.08W.23.443A CARR WIN	81-05-19	256	6727.00	480	256	3.0	847	8.4	16.0	130
04S.01E.08.244 FAZIO WEL	81-08-26	--	--	--	27	--	701	7.8	18.0	240
04S.01E.08.422 FAZIO-KEN	81-08-26	--	--	--	25	--	489	8.0	20.0	160
04S.01E.08.422 FAZIO-KEN	81-08-26	--	--	--	15	--	504	7.8	20.5	180
04S.01E.29.424 RANCHO AL	80-10-20	--	--	--	30	--	3050	8.1	20.0	290
04S.01W.12.443 KNOBLOCK	80-11-21	--	--	--	177	--	535	8.0	20.0	99
04S.01W.22.112 MCA WELL	81-08-14	--	--	--	570	10	952	7.5	23.0	130
04S.02W.24.431 MIERA WEL	81-01-06	--	--	--	--	--	525	8.6	8.0	260
05S.02W.05.321	81-08-21	--	--	--	--	--	180	8.6	24.5	71
05S.02W.08.144 TORREON S	81-04-17	--	--	--	--	--	585	7.7	13.5	230
06S.03E.05.232 SRC-1	81-03-09	--	--	--	--	--	3420	7.3	--	--
	81-08-03	--	--	--	--	--	3430	7.6	--	--
06S.03E.05.234 SRC-2	81-03-09	--	--	--	--	--	3420	7.7	--	--
	81-08-03	--	--	--	--	--	3420	7.6	--	--

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SOCORRO COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
04N.07W.33.412 TURNER WE	81-05-20	--	63	26	320	8.6	5.3	--	410	500
04N.08W.23.443A CARR WIN	81-05-19	--	32	12	140	5.4	1.6	--	260	150
04S.01E.08.244 FAZIO WEL	81-08-26	--	71	15	52	1.5	3.7	--	150	160
04S.01E.08.422 FAZIO-KEN	81-08-26	--	49	8.7	32	1.2	3.1	--	120	87
04S.01E.08.422 FAZIO-KEN	81-08-26	--	55	10	33	1.1	3.2	--	130	87
04S.01E.29.424 RANCHO AL	80-10-20	0	84	19	730	19	21	--	490	750
04S.01W.12.443 KNOBLOCK	80-11-21	0	32	4.6	86	3.8	5.5	--	190	52
04S.01W.22.112 MCA WELL	81-08-14	--	42	6.4	46	1.8	4.8	--	85	37
04S.02W.24.431 MIERA WEL	81-01-06	62	82	14	15	.4	1.8	--	--	49
05S.02W.05.321	81-08-21	--	25	2.1	8.1	.4	1.7	--	70	2.0
05S.02W.08.144 TORREON S	81-04-17	--	61	20	32	.9	2.5	--	230	43
06S.03E.05.232 SRC-1	81-03-09	--	--	--	--	--	--	--	--	--
	81-08-03	--	--	--	--	--	--	--	--	--
06S.03E.05.234 SRC-2	81-03-09	--	--	--	--	--	--	--	--	--
	81-08-03	--	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)
04N.07W.33.412 TURNER WE	81-05-20	8.7	.9	14	--	1190	--	.08	--	--
04N.08W.23.443A CARR WIN	81-05-19	9.9	.7	17	--	522	--	.42	--	--
04S.01E.08.244 FAZIO WEL	81-08-26	35	.4	38	470	466	--	.01	4	79
04S.01E.08.422 FAZIO-KEN	81-08-26	24	.3	32	316	309	--	.02	3	75
04S.01E.08.422 FAZIO-KEN	81-08-26	25	.5	32	333	325	--	.16	5	71
04S.01E.29.424 RANCHO AL	80-10-20	470	1.0	41	2400	2410	--	.00	21	100
04S.01W.12.443 KNOBLOCK	80-11-21	38	.9	48	382	384	--	.53	14	60
04S.01W.22.112 MCA WELL	81-08-14	84	.4	12	289	298	--	.00	2	160
04S.02W.24.431 MIERA WEL	81-01-06	15	.4	37	373	360	5.9	5.7	3	10
05S.02W.05.321	81-08-21	3.1	2.0	26	122	113	--	.24	2	60
05S.02W.08.144 TORREON S	81-04-17	12	.3	27	346	338	--	.33	1	90
06S.03E.05.232 SRC-1	81-03-09	--	--	--	--	--	--	--	--	--
	81-08-03	--	--	--	--	--	--	--	--	--
06S.03E.05.234 SRC-2	81-03-09	--	--	--	--	--	--	--	--	--
	81-08-03	--	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
04N.07W.33.412 TURNER WE	81-05-20	630	--	--	--	1200	--
04N.08W.23.443A CARR WIN	81-05-19	350	--	--	--	30	--
04S.01E.08.244 FAZIO WEL	81-08-26	80	<1	0	0	<10	9
04S.01E.08.422 FAZIO-KEN	81-08-26	60	<1	0	0	<10	5
04S.01E.08.422 FAZIO-KEN	81-08-26	60	<1	0	3	<10	0
04S.01E.29.424 RANCHO AL	80-10-20	610	.1	10	3	130	3
04S.01W.12.443 KNOBLOCK	80-11-21	100	<1	30	1	<10	0
04S.01W.22.112 MCA WELL	81-08-14	80	<1	0	2	180	5
04S.02W.24.431 MIERA WEL	81-01-06	30	<1	0	3	<10	0
05S.02W.05.321	81-08-21	20	<1	0	3	24	2
05S.02W.08.144 TORREON S	81-04-17	40	1	10	1	10	6
06S.03E.05.232 SRC-1	81-03-09	--	--	--	--	--	--
	81-08-03	--	--	--	--	--	--
06S.03E.05.234 SRC-2	81-03-09	--	--	--	--	--	--
	81-08-03	--	--	--	--	--	--

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SOCORRO COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
04N.07W.33.412 TURNER WE	81-05-20	70	--	--	--
04N.08W.23.443A CARR WIN	81-05-19	10	--	--	--
04S.01E.08.244 FAZIO WEL	81-08-26	330	.0	0	0
04S.01E.08.422 FAZIO-KEN	81-08-26	130	.1	0	0
04S.01E.08.422 FAZIO-KEN	81-08-26	190	.0	0	0
04S.01E.29.424 RANCHO AL	80-10-20	590	.0	0	0
04S.01W.12.443 KNOBLOCK	80-11-21	2	.0	6	0
04S.01W.22.112 MCA WELL	81-08-14	520	.0	0	0
04S.02W.24.431 MIERA WEL	81-01-06	4	.0	2	0
05S.02W.05.321	81-08-21	11	.0	0	0
05S.02W.08.144 TORREON S	81-04-17	3	.0	1	0
06S.03E.05.232 SRC-1	81-03-09	--	--	--	--
	81-08-03	--	--	--	--
06S.03E.05.234 SRC-2	81-03-09	--	--	--	--
	81-08-03	--	--	--	--

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)
01N.03W.07.342 CARBON SP	341917107113901	053	SP	80-12-05	1010	<5.8	<.4	3.1	<4
02S.01E.23.331 OJO DEL C	340706106490301	053	SP	81-05-04	1007	<100	<.4	<38	1.9
		053	SP	81-09-08	1053	<54	--	<32	--
02S.01E.26.123	340646106485101	053	SP	81-05-04	1100	<40	1.8	<14	2.9
		053	SP	81-09-08	0945	<.94	--	<46	--
02S.01E.27.243 OJO DE AM	340629106491701	053	SP	80-10-14	1415	11	--	8.1	--
		053	SP	81-05-04	0902	<4.5	<.4	6.9	.8
		053	SP	81-09-08	0843	<5.6	--	6.9	--
02S.01W.10.221 LEWARK WE	340927106553501	053	GW	80-10-01	0930	110	--	16	--
		053	GW	81-05-07	0730	110	.6	22	17
02S.01W.11.243 SIDWELL W	340906106540601	053	GW	80-10-06	0955	<33	--	<14	--
02S.01W.36.1434 LUCAS GA	340534106535401	053	GW	80-10-30	0937	6.1	--	3.6	--
02S.01W.36.323 SAAVEDRA	340525106535901	053	GW	80-10-30	1026	7.5	--	4.5	--
02S.02E.23.241 BUSTOS WE	340727106415401	053	SP	81-08-14	0936	23	<.4	<7.3	2.6
02S.02E.30.234 OJO DEL R	340630106460701	053	SP	81-05-04	1240	<2.8	3.8	7.6	5.2
		053	SP	81-09-08	1015	<9.6	--	9.5	--
03N.02W.26.112	342742107012601	053	GW	81-05-15	1303	20	<.4	<6.0	<.4
03N.03W.12.313	342947107064901	053	GW	81-03-18	1545	<23	<.4	<9.7	<.4
03N.03W.25.412 BOUNDARY	342717107060201	053	SP	80-12-22	1030	4.6	<.4	3.0	1.6
03N.03W.36.344 SECT 25 S	342605107063001	053	SP	80-12-22	1220	40	<.4	7.3	1.2
03S.01W.12.332 BLM-SOCOR	340334106540201	053	GW	80-10-01	1130	12	--	4.5	--
03S.01W.15.131 SMITH WEL	340306106562001	053	GW	81-08-27	1325	12	<.4	5.1	.7
03S.01W.36.113 BURRIS WE	340040106541101	053	GW	80-10-22	1027	<6.6	--	7.1	--
03S.02E.08.422 TREMENTIN	340344106445701	053	SP	81-02-27	1445	<54	.4	<20	2.1
03S.02E.19.314 OJO DE LA	340152106463801	053	SP	81-05-04	1343	<74	<.4	<25	.7
03S.02E.31.11 OWL WELL	340040106464601	053	GW	81-03-26	1420	<42	86	<14	28
03S.03E.05.2132 BUSTOS W	340500106390101	053	GW	81-03-20	0930	<36	1.3	<13	3.8
03S.06E.05.422 C P WILSO	340438106195701	053	GW	80-10-31	1145	<60	--	52	--
04S.01E.08.422 FAZIO-KEN	335829106511101	053	GW	81-08-26	0918	<7.9	<.4	<8.0	<.4
04S.01E.08.422 FAZIO-KEN	335829106511601	053	GW	81-08-26	0925	<8.8	<.4	<7.8	<.4
04S.01E.29.424 RANCHO AL	335549106511801	053	GW	80-10-20	1516	<42	--	26	--
04S.01W.12.443 KNOBLOCK	335815106532601	053	GW	80-11-21	1315	14	<.4	5.6	.5
04S.01W.22.112 MCA WELL	335331106561201	053	GW	81-08-14	1403	<7.9	<.4	5.6	<.4
04S.02W.24.431 MIERA WEL	335634106595201	053	GW	81-01-06	1007	12	<.4	<2.2	.5
05S.02W.05.321	335415107042901	053	GW	81-08-21	1444	<3.2	<.4	2.3	.4
05S.02W.08.144 TORREON S	335325107041501	053	SP	81-04-17	0850	<10	<.4	<4.2	<.4

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SOCORRO COUNTY - continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
01N.03W.07.342 CARBON SP	80-12-05	2.9	<.4	--	1.9
02S.01E.23.331 OJO DEL C	81-05-04	<35	1.9	--	--
	81-09-08	<31	--	.13	12
02S.01E.26.123	81-05-04	<13	2.7	--	--
	81-09-08	<46	--	.11	25
02S.01E.27.243 OJO DE AM	80-10-14	7.6	--	--	5.2
	81-05-04	6.6	.8	--	--
	81-09-08	6.6	--	.09	1.3
02S.01W.10.221 LEWARK WE	80-10-01	15	--	--	155
	81-05-07	22	17	--	--
02S.01W.11.243 SIDWELL W	80-10-06	14	--	--	6.9
02S.01W.36.1434 LUCAS GA	80-10-30	3.4	--	--	5.6
02S.01W.36.323 SAAVEDRA	80-10-30	4.3	--	--	8.2
02S.02E.23.241 BUSTOS WE	81-08-14	<7.0	2.6	--	21
02S.02E.30.234 OJO DEL R	81-05-04	7.2	4.9	--	--
	81-09-08	9.1	--	.14	2.3
03N.02W.26.112	81-05-15	<5.8	<.4	.07	--
03N.03W.12.313	81-03-18	<9.1	<.4	--	.9
03N.03W.25.412 BOUNDARY	80-12-22	2.9	1.6	--	9.1
03N.03W.36.344 SECT 25 S	80-12-22	7.0	1.2	--	12
03S.01W.12.332 BLM-SOCOR	80-10-01	4.3	--	--	2.9
03S.01W.15.131 SMITH WEL	81-08-27	4.9	.7	--	4.4
03S.01W.36.113 BURRIS WE	80-10-22	6.9	--	--	3.9
03S.02E.08.422 TREMENTIN	81-02-27	<18	2.0	--	15
03S.02E.19.314 OJO DE LA	81-05-04	<23	.7	--	--
03S.02E.31.11 OWL WELL	81-03-26	<13	26	--	16
03S.03E.05.2132 BUSTOS W	81-03-20	<12	3.7	--	--
03S.06E.05.422 C P WILSO	80-10-31	50	--	--	1.7
04S.01E.08.422 FAZIO-KEN	81-08-26	<7.5	<.4	--	<.6
04S.01E.08.422 FAZIO-KEN	81-08-26	<7.8	.4	--	<.6
04S.01E.29.424 RANCHO AL	80-10-20	25	--	--	1.2
04S.01W.12.443 KNOBLOCK	80-11-21	5.3	.5	--	6.2
04S.01W.22.112 MCA WELL	81-08-14	5.4	<.4	--	<.6
04S.02W.24.431 MIERA WEL	81-01-06	<2.2	.6	--	3.6
05S.02W.05.321	81-08-21	2.2	.4	--	.6
05S.02W.08.144 TORREON S	81-04-17	<3.9	<.4	--	1.2

TAOS COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	FLOW RATE, INSTAN-TANEOUS (GPM) (00059)
25N.12E.21 EXPLORATORY W	362246105395801	055	GW	81-05-21	1200	--	--	--	10
		055	GW	81-05-21	1245	--	--	--	20
28N.12E.08.142 BIG ARSEN	364043105411101	055	SP	80-10-07	1730	000EXRV	--	--	--
30N.10E.08. MOELLER WILL	365038105530501	055	GW	81-06-01	--	112SNTFU	355	7670.00	--
31N.09E.10 BAGWELL,HUFFA	365623105583501	055	GW	81-03-19	1200	112SNTFU	685	8113.00	--
32N.11E.28. BAGWELL-LABA	365830105464701	055	GW	81-06-01	1430	112SNTFU	355	7670.00	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
25N.12E.21 EXPLORATORY W	81-05-21	710	7.6	13.0	--	--	--	320	--	96
	81-05-21	692	7.6	13.0	--	--	--	330	--	100
28N.12E.08.142 BIG ARSEN	80-10-07	228	8.2	17.0	.10	7.6	2	65	0	18
30N.10E.08. MOELLER WILL	81-06-01	210	7.6	--	--	--	--	80	--	17
31N.09E.10 BAGWELL,HUFFA	81-03-19	575	7.5	--	--	--	--	270	--	80
32N.11E.28. BAGWELL-LABA	81-06-01	155	7.5	12.0	--	--	--	58	--	16

TAOS COUNTY - concluded

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
25N.12E.21 EXPLORATORY W	81-05-21	19	27	.7	2.6	--	220	120	20	.3
	81-05-21	20	28	.7	2.7	--	220	120	20	.2
28N.12E.08.142 BIG ARSEN	80-10-07	4.8	21	1.1	2.5	84	--	22	6.9	--
30N.10E.08. MOELLER WILL	81-06-01	9.2	14	.7	2.8	--	92	10	3.8	.3
31N.09E.10 BAGWELL,HUFFA	81-03-19	16	25	.7	1.4	--	230	76	8.8	.3
32N.11E.28. BAGWELL-LABA	81-06-01	4.4	12	.7	2.6	--	77	2.6	1.4	.2

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)
25N.12E.21 EXPLORATORY W	81-05-21	21	445	--	--	--	1.5	--	--	--
	81-05-21	23	452	--	--	--	1.4	--	--	--
28N.12E.08.142 BIG ARSEN	80-10-07	33	161	.57	.000	.57	.56	.010	.25	.83
30N.10E.08. MOELLER WILL	81-06-01	49	181	--	--	--	4.3	--	--	--
31N.09E.10 BAGWELL,HUFFA	81-03-19	16	362	--	--	--	--	--	--	--
32N.11E.28. BAGWELL-LABA	81-06-01	48	137	--	--	--	.70	--	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)
25N.12E.21 EXPLORATORY W	81-05-21	--	--	--	--	<10	20	--
	81-05-21	--	--	--	--	<10	7	--
28N.12E.08.142 BIG ARSEN	80-10-07	.100	.030	2.7	--	<10	2	<10
30N.10E.08. MOELLER WILL	81-06-01	--	--	--	230	50	10	--
31N.09E.10 BAGWELL,HUFFA	81-03-19	--	--	--	40	<10	--	--
32N.11E.28. BAGWELL-LABA	81-06-01	--	--	--	220	80	6	--

Page
Abiquiu Dam, Rio Chama below..... 161,162
Abiquiu Reservoir near Abiquiu..... 160
Rio Chama above..... 158,159
Abeyta Trujillo Ditch near Abiquiu..... 166
Abo Arroyo tributary near Scholle (crest)..... 578
Accuracy of field data and computed results..... 14
Acequia Madre at Costilla..... 98
Acme, Pecos River near..... 355-358
Acre-foot, definition of..... 5
Adenosine triphospate, definition of..... 5
Ah-shi-sle-pah Wash near Kimbeto..... 505-508
Alameda, North Floodway channel near..... 219
Alamosa Creek near Monticello (misc) (crest)..... 579,588
Alamosa Creek tributary near Jordan (crest)..... 580
Albuquerque, Rio Grande at..... 220-227
Tijeras Arroyo at (crest)..... 578
Tijeras Arroyo near..... 228
Aleman Draw at Aleman (crest)..... 579
Algae, definition of..... 5
Algal growth potential, definition of..... 5
Alma, San Francisco River near..... 571
Alto, Eagle Creek below South Fork near..... 361
Eagle Creek near..... 362
Amalia, Costilla Creek near..... 94
Analysis of samples collected at, miscellaneous sites.. 594-629
water-quality partial-record stations..... 590-593
Animas Creek near Cloverdale (crest)..... 586
Animas River, at Farmington..... 459-466
near Cedar Hill..... 458
Antelope Draw near Jal (crest)..... 582
Anton Chico, Pecos River near..... 324
Aquifer, definition of..... 5
Aragon, Tularosa River above..... 570
Aragon Creek tributary near Encinoso (crest)..... 580
Arboles, CO, Piedra River near..... 439
Archuleta, Navajo Reservoir near..... 442
San Juan River near..... 443-445
Arkansas River basin, crest-stage partial-record
stations in..... 575,576
discharge measurements at miscellaneous sites in..... 589
gaging station records in..... 21-75
Arrey, Caballo Reservoir near..... 305
Arroyo Chico near Guadalupe..... 247-250
Arroyo del Cuervo near Torreon (crest)..... 584
Arroyo del Puerto near Endee (crest)..... 576
Arroyo Hondo, Arroyo Hondo at..... 134-137
Rio Grande near..... 138
Arroyo Seco, Rio Lucero near..... 140
Arroyo Seco tributary near Pojoaque (crest)..... 577
Artesia, Pecos River near..... 371-377
Artesian, definition of..... 5
Artifical substrate, definition of..... 9
Ash mass, definition of..... 5
Avalon Dam, Pecos River below..... 393
Azotea tunnel at outlet, near Chama..... 151

Bacteria, definition of..... 5
Bandelier National Monument, Rito de los Frijoles in... 187,188
Bed material, definition of..... 5
Belen Highline Canal trib near Los Lunas (crest)..... 578
Bell Ranch Canal below Conchas Dam..... 60
Bennett Spring near Capulin..... 21
Bent, Rio Tularosa near..... 432-437
Bernalillo, Jemez Canyon Reservoir near..... 216
Bernalillo County, ground-water levels in..... 632
Bernardo, Bernardo interior drain near..... 241
Lower San Juan Riverside drain near..... 235
Rio Grande conveyance channel near..... 234
Rio Grande floodway near..... 235-240
Rio Puerco near..... 260-264
Bernardo interior drain near Bernardo..... 241
Big Draw near Mountainair (crest)..... 584
Biological data, explanation of..... 16
Biochemical oxygen demand, definition of..... 5
Biomass, definition of..... 5
Bisti Trading Post, De-na-zin Wash near..... 509-511
Hunter Wash at..... 514-517
Black Prince Canyon tributary near Organ (crest)..... 583
Black River above Malaga..... 402
Black Springs Wash near Mexican Springs..... 512,513
Blackwater Draw tributary near Floyd (crest)..... 577
Blanco, Canon Largo Wash near..... 446-449
Bland Canyon near Cochiti (crest)..... 577

Page
Blue Springs near White City (Misc)..... 588
Blue-green algae, definition of..... 7
Bluewater, Bluewater Lake near..... 251
Bluewater Creek near Tucumcari (crest)..... 576
Bluewater Lake near Bluewater..... 251
Bluff, UT, San Juan River near..... 547
Bonita Canyon tributary nr Corona (crest)..... 580
Bottom material, definition of..... 6
Brazos River basin, crest-stage partial-record
stations in..... 577
Bueyeros Creek at Bueyeros (crest)..... 576
Burnham, Burnham Wash near..... 519,520
Chaco River near..... 521-523
Teec-ni-di-tso Wash near..... 518
Burro Canyon near Lindrith (crest)..... 585

Caballo Dam, Rio Grande below..... 306
Caballo Reservoir near Arrey..... 305
Cabresto Creek near Questa..... 115-117
Cameron Creek at Central (crest)..... 582
Canada de la Cueva near Galisteo (crest)..... 578
Canada Montoso near Scholle (crest)..... 578
Canadian River, above New Mexico-Texas State line.... 71-75
at Logan..... 67
below Conchas Dam (misc)..... 589
near Hebron..... 23-24
near Sanchez..... 55-58
near Taylor Springs..... 48
Canjilon Creek above Abiquiu Reservoir (crest)..... 577
Canon de Torreon at Torreon (crest)..... 584
Canon Blanco near Leyba (crest)..... 579
Canon Largo Wash near Blanco..... 446-449
Capulin, Bennett Spring near..... 21
Carlsbad, Dark Canyon Draw at..... 396
Lake Avalon near..... 391,392
Pecos River at..... 394,395
Pecos River below Dark Canyon Draw at..... 397-401
Pecos River near..... 386,387
Rocky Arroyo near..... 388
Carlsbad main canal near Carlsbad..... 390
Carracas, Co, San Juan River near..... 438
Carrizozo Creek at Ruidoso (misc)..... 588
Carrizozo Creek near Roy (crest)..... 576
Carrizozo Creek near Salt Lake (crest)..... 586
Carrizozo Creek near Kenton, OK (crest)..... 575
Casias Creek near Costilla..... 90
Castle Springs near White City (misc)..... 588
Catron County, quality of ground-water in..... 656-659
Cedar Hill, Animas River near..... 458
Cells/volume, definition of..... 6
Cerrillos, Galisteo Reservoir near..... 204
Cerro, Rio Grande above Red River near..... 103
Cerro, Rio Grande near..... 99-102
Cerro Canal, at Costilla..... 98
at State line near Jaroso, CO..... 98
below Association Ditch, at Costilla..... 98
New Mexico Branch, near Jaroso, CO..... 98
Cfs-day, definition of..... 6
Chaco River, near Burnham..... 521-523
near Waterflow..... 524-530
Chaco Wash, at Chaco Canyon National Monument..... 500-502
at East Boundary at Chaco Canyon National Monument. 496-497
near Pueblo Bonito at Chaco Canyon National
Monument..... 503-504
near Star Lake Trading Post..... 491-495
Chama, Azotea tunnel at outlet near..... 151
Chamita, Rio Chama near..... 164-165
Chamita ditch near Chamita..... 165
Chaves County, ground-water levels in..... 632-635
quality of ground water in..... 659-661
Chavez Draw tributary near Clines Corners (crest).... 584
Chemical oxygen demand, definition of..... 589
Chicorica Creek near Hebron..... 285
Chicorica Creek tributary near Raton (crest)..... 575
Chili ditch near Hernandez..... 167
Chlorophyll, definition of..... 6
Chupadera Wash tributary at Bingham (crest)..... 579
Cibola County, groundwater levels in..... 635,636
quality of ground water in..... 662-675
Cieneguilla Creek near Eagle Nest..... 35
Cimarron, Cimarron River near..... 40
Ponil Creek near..... 43,44
Rayado Creek at Sauble Ranch, near..... 45

Page

Cimarron River, at Springer..... 47
below Eagle Nest Dam..... 38,39
near Cimarron..... 40-42
near Kenton, OK..... 22
Clear Creek near Ute Park (crest)..... 575
Cliff, Mogollon Creek near..... 557
Cloud Canyon tributary near Gallinas (crest)..... 580
Cochiti Dam, Rio Grande below..... 199-203
Cochiti eastside main canal at head..... 199
Cochiti Lake, near Cochiti Pueblo..... 195-198
Santa Fe River above..... 192
Colfax County, ground-water levels in..... 636
Collection and computation of data (SW)..... 12
Collection and examination of data (QW)..... 14
Collection of data (GW)..... 16
Colonias, Gallinas River near..... 326
Pecos River near..... 327
Color unit, definition of..... 6
Conchas Dam, Bell Ranch Canal below..... 60
Canadian River below (misc)..... 589
Conchas Canal below Conchas Lake at..... 60
Conchas Canal below Conchas Dam..... 60
Conchas Lake at Conchas Dam..... 61
Conchas River at Variadero..... 59
Contents, definition of..... 6
Control, definition of..... 6
Control structure, definition of..... 6
Cooperation..... 1
Copperas Canyon near Pinos Altos (crest)..... 586
Cordillera ditch at Garcia, CO..... 98
Correo, Rio San Jose at..... 259
Costilla, Casias Creek near..... 90
Costilla Creek below diversion dam, at..... 96
Costilla Creek near..... 95
Costilla Reservoir near..... 92
Santistevan Creek near..... 91
Costilla County, CO, ground-water levels in..... 637
Costilla Creek, above Costilla Dam..... 89
at Garcia, CO..... 97
below Costilla Dam..... 93
below diversion dam, at Costilla..... 96
diversions from..... 98
near Amalia..... 94
near Costilla..... 95
Costilla Dam, Costilla Creek above..... 89
Costilla Creek below..... 93
Costilla Reservoir near Costilla..... 92
Coyote Creek, near Golondrinas..... 53
Coyote Wash tributary near Naschitti (crest)..... 585
Crest-stage partial-record stations..... 575-587
Crow Flats, crest-stage partial-record station in..... 584
Cubic foot per second, definition of..... 6
Cundiyo, Santa Cruz River at..... 168
Curry County, ground-water levels in..... 638
Curtis Canyon near Mayhill (crest)..... 581

Dark Canyon Draw at Carlsbad..... 396
Dawson, Vermejo River near..... 30-32
Dayton, Rio Penasco at..... 378
Deer Creek tributary near Antelope Wells (crest)..... 582
Definition of terms..... 5
Delaware River near Red Bluff..... 423
De-na-zin Wash near Bisti Trading Post..... 509-511
Diatoms, definition of..... 7
Discharge, definition of..... 6
Dissolved, definition of..... 6
Diversions from Rio Chama..... 166, 167
Diversity index, definition of..... 6
Dixon, Embudo Creek at..... 146, 147
Dog Creek near Shoemaker (crest)..... 576
Dona Ana County, ground-water levels in..... 638
quality of ground water in..... 676-679
Downstream order and station number..... 10
Drainage area, definition of..... 6
Drainage basin, definition of..... 6
Dry mass, definition of..... 5
Duck Creek at Cliff (crest)..... 586

Eagle Creek, below South Fork near Alto..... 361
near Alto..... 362
Eagle Nest, Cieneguilla Creek near..... 35
Eagle Nest Lake near..... 37
Moreno Creek at..... 34
Sixmile Creek near..... 36
Eagle Nest Dam, Cimarron River below..... 38, 39
Eagle Nest Lake near Eagle Nest..... 37
Eagle Tail ditch near Maxwell..... 29
Eastdale No. 1 intake canal near Jaroso, CO..... 98
Eddy County, ground-water levels in..... 639-642
quality of ground water in..... 679,680
Eight Mile Draw near Roswell (crest)..... 581
El Paso, TX, Rio Grande at..... 307-313

Page

El Vado Dam, Rio Chama below..... 157
El Vado Reservoir near Tierra Amarilla..... 156
Elephant Butte Dam, Rio Grande below..... 300-304
Elephant Butte Reservoir at Elephant Butte..... 299
Embudo, Rio Grande at..... 148
Embudo Creek at Dixon..... 146,147
Encinal Creek near Casa Blanca (crest)..... 578
Estancia Valley, crest-stage partial-record
stations in..... 583, 584
Estancia Valley tributary at Cedar Grove (crest)..... 583
Explanation of, ground-water level records..... 16
Stage and water-discharge records..... 12
Water-quality records..... 14

F. Herrera ditch S. at Hollywood..... 359
Fajado Wash at Chaco Canyon National Monument..... 498,499
Farmington, Animas River at..... 459-466
Gallegos Canyon Wash near..... 455-457
La Plata River near..... 477-480
San Juan River at..... 467-471
Fecal coliform bacteria, definition of..... 5
Fecal streptococcal bacteria, definition of..... 5
Ferran ditch near Abiquiu..... 166
Fleming Draw near Pinon (crest)..... 584
Fort Sumner, Lake Sumner near..... 345, 346
Fort Sumner main canal near Fort Sumner..... 354
Four Corners, San Juan River at..... 542-546
Fourmile Draw near Lakewood..... 380
Fruitland, San Juan River near..... 481-484
Shumway Arroyo near..... 485
Fullingim Draw near Nara Visa (crest)..... 576

Gage height, definition of..... 6
Gaging station, definition of..... 6
Galestena Canyon tributary near Black Rock (crest)..... 586
Galisteo Creek, at Canoncito (crest)..... 577
below Galisteo Dam..... 205
Galisteo Reservoir near Cerrillos..... 204
Gallegos Canyon tributary near Nageezi (crest)..... 585
Gallegos Canyon Wash near Farmington..... 455-457
Gallinas Creek near Montezuma..... 325
Gallinas River near Colonias..... 326
Gallo Canyon near Picacho (crest)..... 581
Gallo Wash at Chaco Canyon National Monument..... 502
Garcia, CO, Costilla Creek at..... 97
Garita Creek tributary near Variadero (crest)..... 576
Gila River, below Blue Creek, near Virden..... 568
near Gila..... 556
Gila River near Redrock..... 563-567
Gila River basin, crest-stage partial-record
stations in..... 586, 587
gaging station records in..... 556-572
measurements at miscellaneous sites in..... 589
Gobernador Canyon near Gobernador (crest)..... 584
Golondrinas, Coyote Creek near..... 53
Mora River near..... 51, 52
Gonzales ditch at Abiquiu..... 166
Grants, Rio San Jose at..... 255-257
Rio San Jose near..... 255
Grants Canyon at Grants..... 254
Green algae, definition of..... 8
Green Mountain Arroyo near Raton (crest)..... 575
Ground water, quality of..... 656-699
Guadalupe, Arroyo Chico near..... 247-250
Rio Puerco near..... 243
Guique ditch near San Juan Pueblo..... 149

Hagerman, Pecos River near..... 368
Rio Felix near..... 369
Harding County, ground-water levels in..... 642
Hardness, definition of..... 6
Hebron, Canadian River near..... 23, 24
Chicorica Creek near..... 28,589
Hernandez ditch near Hernandez..... 167
Heron Dam, Willow Creek below..... 155
Heron Reservoir near Los Ojos..... 154
Hidalgo County, ground-water levels in..... 643
quality of ground water in..... 681-683
Hollywood, F. Herrera ditch S. at..... 359
Rio Ruidoso at..... 360
Horse Lake Creek above Heron Reservoir near Los Ojos.. 153
Hunter Wash at Bisti Trading Post..... 514-517
Hunter Wash tributary near Bisti Trading Post (crest). 585
Hyatt Canyon near Cloudcroft (crest)..... 581
Hydrologic bench-mark station, definition of..... 12
Hydrologic conditions..... 2
Hydrologic-data station records..... 21-573
Hydrologic unit, definition of..... 7

Indian Creek at mouth, near Three Rivers (crest)..... 583
Indian Creek near Three Rivers (crest)..... 583

Page

Instanteous discharge, definition of..... 6
Introduction..... 1

Jemez, Jemez River near..... 213-215
Jemez Canyon Dam, Jemez River below..... 217,218
Jemez Canyon Reservoir near Bernalillo..... 216
Jemez River, below East Forje near Jemez Springs..... 211
  below Jemez Canyon Dam..... 217,218
  near Jemez..... 213-215
Jose Pablo Gonzales ditch near Abiquiu..... 166
Jose V. Martinez ditch near Medanales..... 166
Juan Tomas Canyon near Edgewood (crest)..... 583
Juan Toro Canyon near Miera (crest)..... 578

Kenton, OK, Cimarron River near..... 22
Kimbeto, Ah-shi-sle-pah Wash near..... 505-508

La Boca, CO, Los Pinos River at..... 440
  Spring Creek at..... 441
La Cueva, Mora River at..... 49,50
La Cueva Canal below La Cueva..... 49
La Jencia Creek, near Magdalena (crest)..... 579
La Madera, Rio Ojo Caliente at..... 163
La Plata River, at Colo.-N.Mex. State line..... 472
  near Farmington..... 477-480
La Plata River tributary near Farmington..... 473-476
La Puente, Rio Chama near..... 150
La Puente ditch near Abiquiu..... 166
Lagartija Creek tributary near Sanchez (crest)..... 576
Laguna, Rio Paguate below Jackpile Mine near..... 258
Lake Alice near Raton..... 25
Lake Arthur, Pecos River near..... 370
Lake Avalon near Carlsbad..... 391,392
Lake Maloya near Raton..... 25
Lake McMillan near Lakewood..... 381,382
Lake Sumner near Fort Sumner..... 345,346
Lakewood, Fourmile Draw near..... 380
  Lake McMillan near..... 381,382
  Pecos River near..... 379
  South Seven Rivers near..... 385
Lakes and reservoirs:
  Abiquiu Reservoir near Abiquiu..... 160
  Alice, Lake, near Raton..... 25
  Avalon, Lake, near Carlsbad..... 391,392
  Bluewater Lake near Bluewater..... 251
  Caballo Reservoir near Arrey..... 305
  Cochiti Lake near Cochiti Pueblo..... 195-198
  Conchas Lake at Conchas Dam..... 61
  Costilla Reservoir near Costilla..... 92
  Eagle Nest Lake near Eagle Nest..... 37
  Elephant Butte Reservoir at Elephant Butte..... 299
  El Vado Reservoir near Tierra Amarilla..... 156
  Galisteo Reservoir near Cerrillos..... 204
  Heron Reservoir near Los Ojos..... 154
  Maloya, Lake, near Raton..... 25
  Jemez Canyon Reservoir near Bernalillo..... 216
  McClure Reservoir near Santa Fe..... 189
  McMillan, Lake, near Lakewood..... 381,382
  Nambe Falls Reservoir near Nambe..... 169
  Navajo Reservoir near Archuleta..... 442
  Nichols Reservoir near Santa Fe..... 191
  Red Bluff Reservoir near Orla, TX..... 424
  Santa Rosa Lake near Santa Rosa..... 333
  Sumner, Lake, near Fort Sumner..... 345,346
  Two Rivers Reservoir near Roswell..... 364
  Ute Reservoir near Logan..... 64-66
Largo Creek near Quemado (crest)..... 585
Last Chance Canyon tributary near Carlsbad Caverns
  (cr)..... 581
Lea County, ground-water levels in..... 644,645
Lea Lake Drain near Roswell (misc)..... 588
Lincoln County, ground-water levels in..... 645,646
  quality of ground water in..... 683,684
Little Colorado River basin, crest-stage partial-
    record stations in..... 585,586
  Gaging station records in..... 548-555
Little Walnut Creek near Silver City (crest)..... 582
Llano ditch near Questa..... 115
Lobatos, CO, Rio Grande near..... 76-87
Locke Arroyo near Kirtland (crest)..... 585
Logan, Canadian River at..... 67
  Revuelto Creek near..... 68-70
  Ute Creek near..... 62,63
  Ute Reservoir near..... 64-66
Los Esteros Creek above Santa Rosa Lake..... 332
Los Esteros Creek tributary above Santa Rosa Lake..... 331
Los Cordovas, Rio Pueblo de Taos below..... 142
Los Ojos, Heron Reservoir near..... 154
  Horse Lake Creek above Heron Reservoir near..... 153
  Willow Creek above Heron Reservoir near..... 152

Page

Los Pinos River at La Boca, CO..... 440
Lower San Juan Riverside drain near Bernardo..... 235
Luna County, ground-water levels in..... 646-648
Luna County, quality of ground-water in..... 684

Mail Hollow near Luna (crest)..... 586
  Malaga, Pecos River near..... 403-408
    Black River above..... 402
Mangas Creek (tributary to Gila River) below
    Mangas Springs..... 561-562,589
  Mangas Creek tributary near Pietown (crest)..... 585
  Manzanares Canyon near Turley (crest)..... 585
  Manzanares and Montoya ditch near Medanales..... 166
Map of New Mexico showing location of,
    hydrologic units..... 18
  Observation wells..... 631
    Partial-record stations (SW)..... 575
    Surface-water stations..... 19
    Water-quality stations..... 20
Mareno Creek (head of Cimarron River) at Eagle Nest... 34
Mariano ditch near Abiquiu..... 166
Martinez and Duranes ditch near Medanales..... 167
Maxwell, Eagle Tail ditch near..... 29
McClure Reservoir near Santa Fe..... 189
McKinley County, quality of ground water in..... 684-686
Mean concentration, definition of..... 9
Mean discharge, definition of..... 6
Measurements at miscellaneous sites..... 588,589
Mesa ditch near Garcia, CO..... 98
Metamorphic stage, definition of..... 7
Methylene blue active substance, definition of..... 7
Mexican Canyon at Virden (crest)..... 586
Micrograms per gram, definition of..... 7
Micrograms per liter, definition of..... 7
Milk Ranch Canyon near Fort Wingate (crest)..... 586
Milligrams per liter, definition of..... 7
Mimbres basin tributary near Florida (crest)..... 582
Mimbres River at Mimbres..... 428-431
Mimbres River basin, crest-stage partial-record
    stations in..... 582
Minnie Hall Draw near Three Rivers (crest)..... 583
Mogollon Creek near Cliff..... 557-560
Monastery Pump near Alire..... 166
Montezuma, Gallinas Creek near..... 325
Monument Draw near Monument (crest)..... 577
Monument Draw tributary near Monument (crest)..... 582
Mora County, ground-water levels in..... 648
  quality of ground water in..... 686
Mora River, at La Cueva..... 49,50
  near Golondrinas..... 51,52
  near Shoemaker..... 54
Moreno Creek at Eagle Nest..... 34
Mosley Canyon near White City (crest)..... 581

Nambe, Rio Nambe below Nambe Falls Dam, near..... 170
NambeFalls Reservoir near Nambe..... 169
National Geodetic Verical datum..... 7
Nationalstream-quality accounting network..... 12
Natural substrate, definition of..... 9
Navajo Reservoir near Archuleta..... 442
Negro Canyon at Aragon (crest)..... 586
New Mexico Branch Cerro canal near Jaroso, CO..... 98
Nichols Reservoir near Santa Fe..... 191
Nogal Creek tributary near Nogal (crest)..... 583
North Floodway Channel near Alameda..... 219
North Spring River at Roswell (crest)..... 581
Numbering system for wells, springs, and miscellaneous
    sites..... 11

Organic mass, definition of..... 5
Organism, definition of..... 7
Organism count, per unit area, definition of..... 7
  per unit volume, definition of..... 7
Orla, TX, Red Bluff Reservoir near..... 424
  Pecos River near..... 425-427
Osita Draw near Clines Corners (crest)..... 584
Otero County, ground-water levels in..... 649
Other data available..... 14

Pajarito Creek at Newkirk (crest)..... 576
Papers Wash near Star Lake Trading Post..... 245,246
Partial-record station, definition of..... 7
Particle size, definition of..... 7
Particle size classification, definition of..... 7
Pancho Canyon near Arabella (crest)..... 581
Pecos, Pecos River near..... 323
Pecos River, above Canon del Uta..... 327
  above Santa Rosa Lake..... 328-330
  above Seven Rivers, near Lakewood..... 384
  at Carlsbad..... 394,395

Page

Pecos River, at damsite 3, near Carlsbad..... 389
at Pierce Canyon Crossing, near Malaga..... 409-414
at Red Bluff..... 415-422
Pecos River, at Santa Rosa..... 336-340
below Avalon Dam..... 393
below Dark Canyon Draw, at Carlsbad..... 397-401
below Major Johnson Springs near Carlsbad..... 386,387
below McMillan Dam..... 383
below Santa Rosa Dam..... 335
below Sumner Dam..... 347-353
Kaiser Channel near Lakewood..... 379
near Acme..... 355-358
near Anton Chico..... 324
near Artesia..... 371-377
near Colonias..... 327
near Hagerman..... 368
near Lake Arthur..... 370
near Malaga..... 403-408
near Orla, TX..... 425-427
near Pecos..... 323
near Puerto de Luna..... 341-344
Pecos River tributary, near Dilia (crest)..... 579
near Pintada (crest)..... 580
near Puerto de Luna (crest)..... 580
near Sena (crest)..... 579
Percent composition, definition of..... 7
Percha Creek, near Hillsboro (crest)..... 579
near Kingston (crest)..... 579
Periphyton, definition of..... 7
Pesticide program, definition of..... 8
Phytoplankton, definition of..... 8
Picocurie, definition of..... 8
Piedra River near Arboles..... 439
Pine Canyon near Thoreau (crest)..... 578
Pinos Altos Creek at Silver City (crest)..... 582
Pintada Arroyo near Santa Rosa (crest)..... 580
Pintada Arroyo tributary, near Encino (crest)..... 580
Plankton, definition of..... 8
Playas Valley, crest-stage partial-record station in.... 582
Plaza Larga Creek tributary near Ragland (crest)..... 576
Polychlorinated biphenols, definition of..... 8
Ponil Creek near Cimarron..... 43,44
Primary productivity, definition of..... 8
Publications on techniques of water-resources
investigations..... 17
Puerco River near Churchrock..... 551,552
Puerco River at Gallup..... 553-555
Puerto de Luna, Pecos River near..... 341-344

Quality of ground water..... 656-699
Quay County, ground-water levels in..... 649
Questa, Cabresto Creek near..... 115-117
Red River above Fish Hatchery near..... 121-123
Red River at mouth, near..... 128,129
Red River below..... 118-120
Red River below Fish Hatchery near..... 124-127
Red River near..... 110-114
Quintana ditch near Abiquiu..... 166

Radiochemical program, explanation of..... 12
Radiochemical analysis of precipitation..... 630
Raton, Lake Alice near..... 25
Lake Maloya near..... 25
Una de Gato Creek near..... 26,27
Raton Creek at Raton (crest)..... 575
Rayado Creek at Sauble Ranch, near Cimarron..... 45
Red Bluff, Delaware River near..... 423
Pecos River at..... 415-422
Red Bluff Reservoir near Orla, TX..... 424
Red Colt Canyon at Pleasanton (crest)..... 587
Red River, above Fish Hatchery, near Questa..... 121-123
at Molycorp Mine near Red River..... 107-109
at mouth near Questa..... 128,129
below Fish Hatchery near Questa..... 124-127
below Questa..... 118-120
below Zwergle damsite near Red River..... 104-106
near Questa..... 110-114
Redrock, Gila River near..... 563-567
Reserve, San Francisco River near..... 569
Reservoirs, see Lakes and reservoirs..... 702
Revuelto Creek near Logan..... 68-70
Rio Amargo at Dulce (crest)..... 584
Rio Bonito near Fort Stanton (crest)..... 580
Rio Bonito tributary near Fort Stanton (crest)..... 581
Rio Chama, above Abiquiu Reservoir..... 158,159
below Abiquiu Dam..... 161,162
below El Vado Dam..... 157
near Chamita..... 164,165
near La Puente..... 150

Page

Rio de Chama ditch near Medanales..... 166
Rio de las Vacas near Senorita (crest)..... 578
Rio del Plano tributary near Taylor Springs (crest)... 575
Rio En Medio near Santa Fe (crest)..... 577
Rio Felix at old highway bridge, near Hagerman..... 369
Rio Grande, above Red River near Cerro..... 103
above San Juan Pueblo..... 149
above Rio Hondo at Dunn Bridge..... 130,132
at Albuquerque..... 220-227
at Colorado-New Mexico State line..... 88
at El Paso, TX..... 307-313
at Embudo..... 148
at Isleta..... 230-233
at Otowi Bridge, near San Ildefonso..... 171-186
at San Felipe..... 206-210
below Caballo Dam..... 306
below Cochiti Dam..... 199-203
below Elephant Butte Dam..... 300-304
below Old Fort Quitman, TX..... 314-318
below Taos Junction Bridge, near Taos..... 143,145
near Arroyo Hondo..... 138
near Cerro..... 99-102
near Lobatos, CO..... 76-87
Rio Grande basin, crest-stage partial-record
stations in..... 577-582
discharge measurements at miscellaneous sites in.... 588,589
gaging station records in..... 76-437
water-quality miscellaneous sites in..... 594-629
water-quality partial-record stations in..... 590-593
Rio Grande conveyance channel, at San Acacia..... 268-274
at San Marcial..... 281-289
near Bernardo..... 234
Rio Grande del Rancho near Talpa..... 141
Rio Grande floodway, at San Acacia..... 275-280
at San Marcial..... 290-298
near Bernardo..... 235-240
Rio Grande tributary near Radium Springs (crest)..... 579
Rio Guadalupe at Box Canyon near Jemez..... 212
Rio Hondo, at Diamond A Ranch, near Roswell..... 363
at Roswell..... 367
below Diamond A Dam, near Roswell 365
Rio Hondo near Valdez (trib to Rio Grande)..... 133
(see also "Arroyo Hondo")
Rio Hondo tributary at Tinnie (crest)..... 581
Rio Lucero near Arroyo Seco..... 140
Rio Mora near Terrero..... 319-322
Rio Nambe, below Nambe Falls Dam, near Nambe..... 170
Rio Nutria near Ramah..... 548
Rio Ojo Caliente at La Madera..... 163
Rio Paguate below Jackpile Mine, near Laguna..... 258
Rio Penasco, at Dayton..... 378
near Dunken (crest)..... 581
Rio Pueblo de Taos, below Los Cordovas..... 142
near Taos..... 139
Rio Puerco, above Arroyo Chico, near Guadalupe..... 243
near Bernardo..... 260-264
Rio Ruidoso, at Hollywood..... 360
near Ruidoso (misc)..... 588
Rio Salado near San Acacia..... 265,266
Rio San Jose, at Correo..... 259
at Grants..... 255-257
near Grants..... 253
Rio Tularosa near Bent..... 432-437
Rito de los Frijoles in Bandelier National Monument... 187,188
Rocky Arroyo, above Two Rivers Reservoir..... 366
below Rocky Dam, near Roswell..... 366
Rocky Arroyo at highway bridge, near Carlsbad..... 388
Roosevelt County, ground-water levels in..... 650,651
Roswell, North Spring River at (crest)..... 581
Rio Hondo near..... 365
Rocky Arroyo near..... 366
Two Rivers Reservoir near..... 364
Ruben Canyon near Gobernador (crest)..... 584
Running Water Draw near Clovis (crest)..... 577

Salazar ditch at Hernandez..... 167
Salt Creek tributary near Roswell (crest)..... 580
San Acacia, Rio Grande conveyance channel at..... 268-274
Rio Grande floodway at..... 275-280
Rio Salado near..... 265,266
Socorro main canal north at..... 267
San Augustin Plains Basin, crest-stage partial-record
station in..... 584
San Cristobal Arroyo near Galisteo (crest)..... 577
San Felipe, Rio Grande at..... 206-210
San Francisco River near Alma..... 571
near Glenwood..... 572,573
near Reserve..... 569
San Ildefonso, Rio Grande at Otowi Bridge, near..... 171-186
San Jose arroyo near Monticello (crest)..... 579

Page

San Juan County, quality of ground water in..... 686-689
San Juan lateral above San Juan Pueblo..... 149
San Juan Pueblo, Rio Grande above..... 149
San Juan Pueblo ditch above San Juan Pueblo..... 149
at Farmington..... 467-471
at Four Corners, CO..... 542-546
at Hammond Bridge, near Bloomfield..... 450-454
at Shiprock..... 531-541
near Archuleta..... 443-445
near Bluff, UT..... 547
near Caracas, CO..... 438
near Fruitland..... 481-484
San Juan River basin, crest-gage partial-record stations in..... 584, 585
gaging station records in..... 438-547
water-quality miscellaneous sites in..... 614-628
water-quality partial-record stations in..... 590-593
San Marcial, Rio Grande conveyance channel at..... 281, 282
Rio Grande floodway at..... 290-298
San Mateo Creek near San Mateo..... 252
San Pablo Creek near Cuba 242
San Pedro Creek near Golden (crest)..... 578
Sanchez, Canadian River near..... 55-58
Sand Draw near Clayton (crest)..... 577
Sand Draw tributary near Clayton (crest)..... 577
Sandoval Canyon at Gallinas (crest)..... 580
Santa Cruz River at Cundiyo..... 168
Santa Fe, McClure Reservoir near..... 189
Santa Fe, Nichols Reservoir near..... 191
Santa Fe River near..... 190
Santa Fe County, ground-water levels in..... 651
Santa Fe River, above Cochiti Lake..... 192
near Santa Fe..... 190
Santa Rosa, Pecos River at..... 336-340
Santa Rosa Dam, Pecos River below..... 335
Santa Rosa Lake, Los Esteros Creek above..... 332
Los Esteros Creek tributary above..... 331
near Santa Rosa..... 333, 334
Pecos River above..... 328-330
Santistevan Creek near Costilla..... 91
Sediment, definition of..... 8
explanation of program..... 15
Seventysix Draw tributary near Waterloo (crest)..... 582
Shiprock, San Juan River at..... 531-541
Shoemaker, Mora River near..... 54
Shumway Arroyo, near Fruitland..... 485
near Waterflow..... 486-490
Sierra County, ground-water levels in..... 652
Sierra County, quality of ground-water in..... 689, 690
Sili main canal at head..... 199
Silva Creek at Silver City (crest)..... 582
Silver City, Silva Creek at..... 582
Sixmile Creek near Eagle Nest..... 36
Socorro County, quality of ground water in..... 690-698
Socorro main canal north at San Acacia..... 267
Sodium adsorption ratio, definition of..... 9
Solute, definition of..... 9
Solution, definition of..... 9
South Seven Rivers near Lakewood..... 385
Special networks and programs..... 11
Specific conductance, definition of..... 9
Spring Creek at La Boca, CO..... 441
Springer, Cimarron River at..... 47
Stage-discharge relation, definition of..... 9
Star Lake Trading Post, Chaco Wash near..... 491-495
Papers Wash near..... 245, 246
Steins Creek at Steins (crest)..... 587
Stevens Arroyo near Kirtland (crest)..... 585
Streamflow, definition of..... 9
Substrate, definition of..... 9
Sumner, Lake, near Fort Sumner..... 345, 346
Sumner Dam, Pecos River below..... 347-353
Surface area, definition of..... 9
Surface-water data, accuracy of..... 14
collection and computation of..... 12
Surficial bed material, definition of..... 9
Surveillance program, explanation of..... 12
Suspended, recoverable, definition of..... 9
Suspended, total, definition of..... 10
Suspended sediment, definition of..... 8
Suspended sediment concentration, definition of..... 9
Suspended sediment discharge, definition of..... 9
Suspended sediment load, definition of..... 9
Swingle Canyon near Datil (crest)..... 584

Page

Talpa, Rio Grande del Rancho near..... 141
Taos, Rio Grande below Taos Junction Bridge, near..... 143, 145
Rio Pueblo de Taos near..... 139
Taos County, ground-water levels in..... 652, 653
Taos County, quality of ground water in..... 698, 699
Tarhole Canyon near Galisteo (crest)..... 578
Taylor Canyon tributary near Bingham (crest)..... 583
Taylor Springs, Canadian River near..... 48
Taxonomy, definition of..... 10
Techniques of water-resources investigation, list of... 17
Tecolote Creek at Tecolote (crest)..... 579
Teec-ni-di-tso Wash near Burnham..... 518
Terms, definition of..... 5-10
Terrero, Rio Mora near..... 319-322
Tierra Amarilla, El Vado Reservoir near..... 156
Tierra Azul ditch near Medanales..... 166
Tijeras Arroyo, at Albuquerque (crest)..... 578
below south diversion, near Albuquerque..... 229
near Albuquerque..... 228
Time-weighted average, definition of..... 10
Tons per acre-foot, definition of..... 10
Tons per day, definition of..... 10
Torrance County, ground-water levels in..... 653, 654
Total, definition of..... 10
in bottom material, definition of..... 10
recoverable, definition of..... 10
recoverable from bottom material..... 10
Total coliform bacteria, definition of..... 5
Total load, definition of..... 10
Total organism count, definition of..... 7
Total sediment discharge, definition of..... 9
Tramperos Creek near Stead (crest)..... 576
Trementina Creek at Trementina (crest)..... 576
Tritium network, explanation of..... 12
Trout Creek at Luna (crest)..... 586
Tularosa River, above Aragon..... 570
near Reserve (crest)..... 587
Tularosa Valley, crest-stage partial-record stations in..... 583
gaging station records in..... 432-437
Tularosa Valley tributary, near Oscura (crest)..... 582
near Orogrande (crest)..... 583
Twin Butte Canyon tributary near Roswell (crest)..... 581
Two Rivers Reservoir near Roswell..... 364

Una de Gato Creek below Throttle Dam near Raton..... 26, 27
Union County, ground-water levels in..... 655
Unnamed Arroyo near Ojo Calient, NM (crest)..... 586
Ute Creek near Logan..... 62, 63
Ute Reservoir near Logan..... 64-66

Valdez, Rio Hondo near..... 133
Valentine Martinez ditch near Abiquiu..... 166
Vaqueros Canyon near Gobernador (crest)..... 584
Variadero, Conchas River at..... 59
Vermejo Ditch near Colfax..... 33
Vermejo River near Dawson..... 30-32
Virden, Gila River below Blue Creek near..... 568

Water analysis..... 15
Water temperature..... 15
Water quality at partial-record stations, analysis of.. 590-629
Water-quality records, explanation of..... 14
Waterflow, Chaco River near..... 524-530
Shumway Arroyo near..... 486-490
Weighted average, definition of..... 6, 10
West Draw near Farmington (crest)..... 585
WEt mass, definition of..... 5
White Oaks Canyon, at White Oaks (crest)..... 583
near Carrizozo (crest)..... 583
Willow Creek, above Heron Reservoir near Los Ojos..... 152
below Heron Dam..... 155
Willow Springs Canyon at Mimbres (crest)..... 582
Winfield Morton Pump near Abiquiu..... 166
WRD, definition of..... 10
WSP, definition of..... 10

Yazzie Wash near Mexican Springs (crest)..... 585
Yeso Creek near Fort Sumner (crest)..... 580

Zooplankton, definition of..... 8
Zuni River above Black Rock Reservoir..... 549, 550
Zuni River near New Mexico-Arizona State line (crest).. 586

☆U.S. GOVERNMENT PRINTING OFFICE:1983—580-766 / 73

October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF THE INTERIOR
INT 413

U.S. MAIL

U.S. DEPARTMENT OF THE INTERIOR
Geological Survey
505 Marquette NW, Room 720
Albuquerque, New Mexico 87102

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE $300

SPECIAL 4TH CLASS BOOK RATE