

Water Resources Data for New Mexico

I. DeWees

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NM-80-1

WATER YEAR 1980

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

CALENDAR FOR WATER YEAR 1980

1 9 7 9

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					

1 9 8 0

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	29	

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

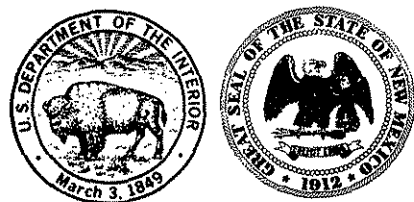
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

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 for New Mexico

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NM-80-1

WATER YEAR 1980

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
P.O. Box 26659
Albuquerque, New Mexico 87125

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.

REPORT DOCUMENTATION PAGE		1. REPORT NO. USGS/WRD/HD-81/036	2.	3. Recipient's Accession No.
4. Title and Subtitle Water Resources Data for New Mexico, Water Year 1980				5. Report Date September 1981
7. Author(s)				6.
9. Performing Organization Name and Address U.S. Geological Survey, Water Resources Division Western Bank Building, 505 Marquette Street, NW Albuquerque, New Mexico 87125				8. Performing Organization Rept. No. USGS-WRD-NM-80-1
12. Sponsoring Organization Name and Address U.S. Geological Survey, Water Resources Division Western Bank Building, 505 Marquette Street, NW Albuquerque, New Mexico 87125				10. Project/Task/Work Unit No.
				11. Contract(C) or Grant(G) No. (C) (G)
15. Supplementary Notes Prepared in cooperation with the State of New Mexico and with other agencies.				13. Type of Report & Period Covered Annual - Oct. 1, 1979 to Sept. 30, 1980
				14.
16. Abstract (Limit: 200 words) Water resources data for the 1980 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 226 gaging stations; stage and contents for 24 lakes and reservoirs; water quality for 91 gaging stations, 97 observation wells. Also included are 138 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, *Ground 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		21. No. of Pages - 679
		20. Security Class (This Page) UNCLASSIFIED		22. Price

CONTENTS

v

	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.....	9
Downstream order and numbering system for wells, springs, and miscellaneous sites.....	9
Special networks and programs.....	10
Explanation of stage and water discharge records.....	11
Collection and computation of data.....	11
Accuracy of field data and computed results.....	13
Other data available.....	13
Explanation of water-quality records.....	13
Collection and examination of data.....	13
Water analysis.....	13
Water temperatures.....	14
Sediment.....	14
Biological data.....	14
Parameter codes.....	14
Explanation of ground-water level records.....	14
Collection of data.....	15
Publications on techniques of water-resources investigations.....	19
Gaging station records.....	566
Discharge at partial-record stations.....	566
Low-flow partial-record stations.....	566
Crest-stage partial-record stations.....	579
Miscellaneous sites.....	581
Vermejo River and Vermejo Ditch seepage investigations.....	584
Santa Fe River seepage investigation.....	585
Analyses of samples collected at water-quality partial-record stations.....	588
Analyses of samples collected at miscellaneous sites.....	594
Chemical analyses of atmospheric precipitation.....	596
Ground-water records.....	596
Ground-water levels.....	621
Quality of ground water.....	674
Index.....	

ILLUSTRATIONS

Figure 1. System for numbering wells, springs, and miscellaneous sites.....	9
2. Map of New Mexico showing location of hydrologic units.....	16
3. Map of New Mexico showing location of surface-water gaging stations.....	17
4. Map of New Mexico showing location of water-quality stations.....	18
5. Map of New Mexico showing location of partial-record stations.....	565
6. Map of New Mexico showing location of observation wells.....	595

TABLES

Calendar for 1980 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).....	19
Cimarron River near Kenton, OK (d).....	20
Canadian River near Hebron (cd).....	21
Chicorica Creek:	
Lake Maloya near Raton (e).....	23
Lake Alice near Raton (e).....	23
Una de Gato Creek below Throttle Dam (cd).....	24
Chicorica Creek near Hebron (c).....	26
Eagle Tail ditch near Maxwell (d).....	27
Vermejo River near Dawson (cds).....	28
Moreno Creek (head of Cimarron River) at Eagle Nest (d).....	30
Eagle Nest Lake:	
Cieneguilla Creek near Eagle Nest (d).....	31
Sixmile Creek near Eagle Nest (d).....	32
Eagle Nest Lake near Eagle Nest (e).....	33
Cimarron River below Eagle Nest Dam (cd).....	34
Cimarron River near Cimarron (d).....	36
Ponil Creek near Cimarron (d).....	37
Rayado Creek at Sauble Ranch, near Cimarron (d).....	38
Cimarron River at Springer (d).....	39
Canadian River near Taylor Springs (d).....	40
Mora River at La Cueva (d).....	41
Mora River near Golondrinas (d).....	42
Coyote Creek near Golondrinas (d).....	43
Mora River near Shoemaker (d).....	44
Canadian River near Sanchez (cdms).....	45
Conchas Lake:	
Conchas River at Variadero (d).....	49
Bell Ranch Canal below Conchas Dam (d).....	50
Conchas Canal below Conchas Dam (d).....	50
Conchas Lake at Conchas Dam (e).....	51
Ute Reservoir:	
Ute Creek near Logan (d).....	52
Ute Reservoir near Logan (bcem).....	53
Canadian River at Logan (d).....	61
Reuelto Creek near Logan (cds).....	62
Canadian River above New Mexico-Texas State line (bcms).....	65

WESTERN GULF OF MEXICO BASINS

RIO GRANDE BASIN	
Rio Grande near Lobatos, CO (bcdmt).....	69
Rio Grande at Colorado-New Mexico State line (d).....	77
Costilla Creek above Costilla Dam (d).....	78
Costilla Reservoir:	
Casias Creek near Costilla (d).....	79
Santistevan Creek near Costilla (d).....	80
Costilla Reservoir near Costilla (e).....	81
Costilla Creek below Costilla Dam (d).....	82
Costilla Creek near Amalia (d).....	83
Costilla Creek near Costilla (d).....	84
Costilla Creek below diversion dam, at Costilla (d).....	85
Costilla Creek at Garcia, CO (d).....	86
Principal diversions from Costilla Creek (d).....	87
Rio Grande near Cerro (cdms).....	88
Rio Grande above Red River, near Cerro (cms).....	91
Red River below Zwergle damsite, near Red River (cms).....	93
Red River at MolyCorp Mine, near Red River (cms).....	95
Red River near Questa (cdms).....	97
Cabresto Creek near Questa (cdms).....	100
Red River below Questa (cms).....	103
Red River above State Fish Hatchery, near Questa (cms).....	105
Red River below Fish Hatchery, near Questa (cdms).....	107
Red River at mouth, near Questa (cms).....	110
Rio Grande above Rio Hondo, at Dunn Bridge (cms).....	112
Rio Hondo near Valdez (d).....	114
Arroyo Hondo at Arroyo Hondo (cdms).....	115
Rio Grande near Arroyo Hondo (d).....	118
Rio Pueblo de Taos near Taos (d).....	119
Rio Lucero near Arroyo Seco (d).....	120
Rio Fernando de Taos near Taos (d).....	121
Rio Pueblo de Taos near Ranchito (d).....	122
Rio Grande del Rancho near Talpa (d).....	123
Rio Chiquito near Talpa (d).....	124
Rio Pueblo de Taos below Los Cordovas (d).....	125

WESTERN GULF OF MEXICO BASINS--Continued

	Page
<u>RIO GRANDE BASIN--Continued</u>	
Rio Grande below Taos Junction Bridge, near Taos (cdms).....	126
Embudo Creek at Dixon (cd).....	130
Rio Grande at Embudo (d).....	132
Rio Grande above San Juan Pueblo (d).....	133
Rio Chama near La Puente (d).....	134
Willow Creek:	
Azotea Creek:	
Azotea tunnel at outlet, near Chama (d).....	135
Willow Creek above Heron Reservoir, near Los Ojos (d).....	136
Heron Reservoir:	
Horse Lake Creek above Heron Reservoir, near Los Ojos (d).....	137
Heron Reservoir near Los Ojos (e).....	138
Willow Creek below Heron Dam (d).....	139
El Vado Reservoir near Tierra Amarilla (e).....	140
Rio Chama below El Vado Dam (d).....	141
Rio Chama above Abiquiu Reservoir (ds).....	142
Abiquiu Reservoir near Abiquiu (e).....	144
Rio Chama below Abiquiu Dam (ds).....	145
Rio Ojo Caliente at La Madera (d).....	147
Rio Chama near Chamita (ds).....	148
Diversions from Rio Chama (d).....	150
Santa Cruz River at Cundiyo (d).....	152
Rio Nambe (head of Pojoaque River):	
Nambe Falls Reservoir near Nambe (e).....	153
Rio Nambe below Nambe Falls Dam, near Nambe (d).....	154
Rio Grande at Otowi Bridge, near San Ildefonso (bcdmst).....	155
Rito de los Frijoles in Bandelier National Monument (ds).....	171
Cochiti Lake:	
Santa Fe River:	
McClure Reservoir near Santa Fe (e).....	173
Santa Fe River near Santa Fe (d).....	174
Nichols Reservoir near Santa Fe (e).....	175
Santa Fe River above Cochiti Lake (cd).....	176
Cochiti Lake near Cochiti Pueblo (e).....	177
Rio Grande below Cochiti Dam (cdst).....	178
Galisteo Reservoir near Cerrillos (e).....	183
Galisteo Creek below Galisteo Dam (d).....	184
Rio Grande at San Felipe (bcdms).....	185
Jemez River near Jemez (d).....	190
Jemez Canyon Reservoir near Bernalillo (e).....	191
Jemez River below Jemez Canyon Dam (cd).....	192
North Floodway Channel near Alameda (d).....	195
Rio Grande at Albuquerque (cdst).....	196
Tijeras Arroyo near Albuquerque (d).....	202
Tijeras Arroyo below south diversion, near Albuquerque (d).....	203
Rio Grande at Isleta (cms).....	204
Rio Grande conveyance channel near Bernardo (d).....	208
Rio Grande floodway near Bernardo (cdst).....	209
Bernardo interior drain near Bernardo (d).....	216
San Pablo Creek near Cuba (cds).....	217
Rio Puerco above Arroyo Chico, near Guadalupe (d).....	221
Arroyo Chico:	
Torrior Arroyo:	
Papers Wash near Star Lake Trading Post (cdms).....	222
Arroyo Chico near Guadalupe (ds).....	225
Bluewater Creek (head of Rio San Jose):	
Bluewater Lake near Bluewater (e).....	228
San Mateo Creek near San Mateo (d).....	229
Rio San Jose at Grants (cds).....	230
Grants Canyon at Grants (d).....	232
Rio San Jose near Grants (cds).....	233
Rio Pagueate below Jackpile Mine near Laguna (d).....	235
Rio San Jose at Correo (d).....	236
Rio Puerco near Bernardo (cdst).....	238
Rio Salado near San Acacia (cds).....	242
Socorro main canal north at San Acacia (d).....	244
Rio Grande conveyance channel at San Acacia (cdmst).....	245
Rio Grande floodway at San Acacia (cdst).....	252
Rio Grande conveyance channel at San Marcial (bcdmst).....	258
Rio Grande floodway at San Marcial (bcdmst).....	263
Elephant Butte Reservoir at Elephant Butte (e).....	281
Rio Grande below Elephant Butte Dam (bcdmst).....	282
Caballo Reservoir near Arrey (e).....	288
Rio Grande below Caballo Dam (d).....	289
Rio Grande at El Paso, TX (bcdmst).....	290
Rio Grande below Old Fort Quitman, TX (bcmst).....	297
Pecos River:	
Rio Mora near Terrero (cdms).....	304
Pecos River near Pecos (d).....	308
Pecos River near Anton Chico (d).....	309
Gallinas Creek near Montezuma (d).....	310
Gallinas River near Colonias (d).....	311
Pecos River above Canon del Uta, near Colonias (d).....	312
Pecos River above Santa Rosa Lake (d).....	313

WESTERN GULF OF MEXICO BASINS--Continued

Page

RIO GRANDE BASIN--Continued

Rio Grande--Continued

Santa Rosa Lake:

Los Esteros Creek above Santa Rosa Lake (d)..... 314

Los Esteros Creek tributary above Santa Rosa Lake (d)..... 315

Pecos River below Santa Rosa Dam (e)..... 316

Pecos River at Santa Rosa (cdst)..... 317

Pecos River near Puerto de Luna (cdms)..... 321

Lake Sumner near Fort Sumner (e)..... 324

Pecos River below Sumner Dam (bcdms)..... 326

Fort Sumner main canal near Fort Sumner (d)..... 332

Pecos River near Acme (cd)..... 333

Rio Ruidoso (head of Rio Hondo):

F. Herrera ditch S. at Hollywood (d)..... 335

Rio Ruidoso at Hollywood (d)..... 336

Eagle Creek below South Fork, near Alto (d)..... 337

Eagle Creek near Alto (d)..... 338

Rio Hondo at Diamond A Ranch, near Roswell (d)..... 339

Two Rivers Reservoir near Roswell (e)..... 340

Rio Hondo below Diamond A Dam, near Roswell (d)..... 341

Rocky Arroyo above Two Rivers Reservoir (d)..... 342

Rocky Arroyo below Rocky Dam, near Roswell (d)..... 343

Pecos River near Hagerman (d)..... 344

Rio Felix at old highway bridge, near Hagerman (d)..... 345

Pecos River near Lake Arthur (d)..... 346

Pecos River near Artesia (cdmst)..... 347

Rio Penasco at Dayton (d)..... 355

Pecos River (Kaiser Channel) near Lakewood (d)..... 356

Lake McMillan:

Fourmile Draw near Lakewood (d)..... 357

Lake McMillan near Lakewood (e)..... 358

Pecos River below McMillan Dam (d)..... 360

Pecos River above Seven Rivers, near Lakewood (d)..... 361

South Seven Rivers near Lakewood (d)..... 362

Pecos River below Major Johnson Springs, near Carlsbad (d)..... 363

Rocky Arroyo at highway bridge, near Carlsbad (d)..... 364

Pecos River at damsite 3, near Carlsbad (d)..... 365

Lake Avalon:

Carlsbad main canal at head, near Carlsbad (d)..... 366

Lake Avalon near Carlsbad (e)..... 367

Pecos River below Avalon Dam (d)..... 369

Pecos River at Carlsbad (ct)..... 370

Dark Canyon Draw at Carlsbad (d)..... 373

Pecos River below Dark Canyon Draw, at Carlsbad (cd)..... 374

Black River above Malaga (d)..... 376

Pecos River near Malaga (cdt)..... 377

Pecos River at Pierce Canyon Crossing, near Malaga (cdt)..... 382

Pecos River at Red Bluff (bcdmst)..... 386

Delaware River near Red Bluff (d)..... 394

Red Bluff Reservoir near Orla, TX (e)..... 395

Pecos River near Orla, TX (cdt)..... 396

MIMBRES RIVER BASIN

Mimbres River at Mimbres (bcdms)..... 399

TULAROSA VALLEY

Rio Tularosa near Bent (bcdms)..... 405

COLORADO RIVER BASIN

SAN JUAN RIVER BASIN

San Juan River near Carracas, CO (d)..... 411

Navajo Reservoir:

Piedra River near Arboles, CO (d)..... 412

Los Pinos River at La Boca, CO (d)..... 413

Spring Creek at La Boca, CO (d)..... 414

Navajo Reservoir near Archuleta (e)..... 415

San Juan River near Archuleta (cds)..... 416

Canon Largo Wash near Blanco (cdms)..... 419

San Juan River at Hammond Bridge near Bloomfield (bcdms)..... 422

Gallegos Canyon Wash near Farmington (cdms)..... 430

Animas River near Cedar Hill (d)..... 433

Animas River at Farmington (bcdmst)..... 434

San Juan River at Farmington (cdt)..... 442

La Plata River at Colorado-New Mexico State line (d)..... 447

La Plata River tributary near Farmington (d)..... 448

La Plata River near Farmington (bcdms)..... 451

COLORADO RIVER BASINSAN JUAN RIVER BASIN

	Page
San Juan River near Fruitland (bcdms).....	459
Shumway Arroyo near Fruitland (d).....	467
Shumway Arroyo near Waterflow (cdms).....	468
Chaco Wash (head of Chaco River):	
Chaco Wash near Star Lake Trading Post (cdms).....	475
Chaco Wash at Chaco Canyon National Monument (cds).....	481
Gallo Wash at Chaco Canyon National Monument (d).....	484
Ah-shi-sle-pah Wash near Kimbeto (cds).....	485
De-na-zin Wash near Bisti Trading Post (cds).....	489
Black Springs Wash near Mexican Springs (d).....	491
Hunter Wash at Bisti Trading Post (cds).....	492
Teec-ni-di-tso Wash near Burnham (cds).....	494
Brimhall Wash:	
Burnham Wash near Burnham (cdms).....	497
Chaco River near Burnham (cdms).....	501
Chaco River near Waterflow (cdms).....	505
San Juan River at Shiprock (bcdmst).....	513
San Juan River at Four Corners, CO (bcdms).....	526
San Juan River near Bluff, UT (d).....	534

LITTLE COLORADO RIVER BASINZuni River:

Rio Nutria near Ramah (cd).....	535
Zuni River above Black Rock Reservoir (cds).....	538
Puerco River near Church Rock (cds).....	540
Puerco River at Gallup (cds).....	543

GILA RIVER BASIN

Gila River near Gila (d).....	545
Mogollon Creek near Cliff (cdms).....	546
Mangas Creek below Mangas Springs (c).....	550
Gila River near Redrock (bcdms).....	551
Gila River below Blue Creek, near Virden (d).....	558
San Francisco River near Reserve (d).....	559
Tularosa River above Aragon (d).....	560
San Francisco River near Alma (d).....	561
San Francisco River near Glenwood (cds).....	562

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 226 gaging stations; stage and contents for 24 lakes and reservoirs; water quality for 91 gaging stations, 7 partial-record stations, 1 reservoir, 33 springs, and 274 wells; and water levels at 97 observation wells. Also included are 138 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;
R. B. McGowen, Jr., 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 30 gaging stations; by the Bureau of Reclamation, U.S. Department of the Interior, for 7 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 8 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 New Mexico Institute of Mining and Technology, 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.

HYDROLOGIC CONDITIONS

As is common in New Mexico, streamflow varied considerably during the current year. This holds true with respect to both time and geographic location. The variations are related to differences in precipitation, temperature, topography, and geology. The yearly mean discharge for 1980 and the relation to the median of yearly mean discharge for the base period 1941-70 for five index stations is given below.

Station	Discharge ft ³ /s	Percent of median
Rayado Creek at Sauble Ranch	20.4	185
Rio Grande below Taos Junction Bridge	934	149
Pecos River near Pecos	104	119
Delaware River near Red Bluff	12.9	123
Gila River near Gila	142	167

Runoff was similar in most natural streams in New Mexico during the 1980 water year. The year began with most streams in the deficient range (in the lowest 25 percent of record for the base period). During the winter, streamflow increased into the normal range and by spring was excessive (in the highest 25 percent of record for the base period). By the end of the year, most uncontrolled streamflow had again dropped back into the deficient range.

The combined storage in the eleven major reservoirs increased 415,000 acre-feet during the water year.

Chemical quality of surface waters remained above average over most of the state. Median daily specific conductance was lower than average for the period of record at four NASQAN stations in the Rio Grande, Pecos, and San Juan River basins. The greatest improvement occurred at Pecos River at Red Bluff where the median daily specific conductance was 28 percent lower than the median for the period of record.

Out of ninety-three wells where ground water levels were observed during the year, new low-water levels were observed at sixteen wells and new high-water levels were observed at six wells.

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 \pm 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 \pm 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 \pm 1.0°C on M-enterococcus 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/m³), and periphyton and benthic organisms in grams per square meter (g/m²).

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 (ft³/s, ft³/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 μ 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:

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

Where n_i is the number of individuals per taxon, n is the total number of individuals, and s 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 magnesium) and is expressed as equivalent calcium carbonate (CaCO₃).

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, µg/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, µg/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 (m²), 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 [$\text{mg C}/(\text{m}^2 \cdot \text{time})$ for periphyton and macrophytes and $\text{mg C}/(\text{m}^3 \cdot \text{time})$ 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 [$\text{mg O}_2/(\text{m}^2 \cdot \text{time})$ for periphyton and macrophytes and $\text{mg O}_2/(\text{m}^3 \cdot \text{time})$ 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 suspended 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 occurring emerged 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 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 μ 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 μ 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.....Hexagenia
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 constituent, 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 indentation on a list of stations in the front of the report. Each indentation represents one rank. This downstream order and system of indentation 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 1 below.

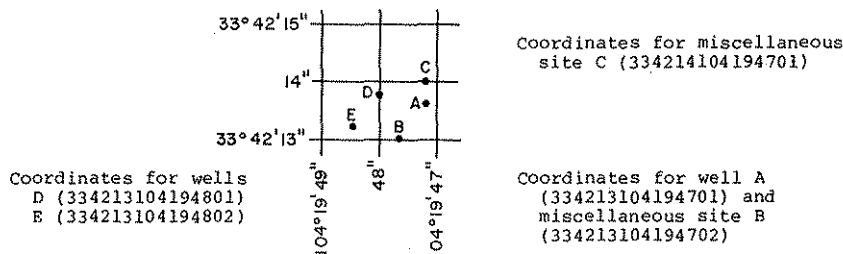


Figure 1.--System for numbering wells, springs, and miscellaneous sites

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 Mimbres; 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 for 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-opening 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, drainage area, period of 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 2.

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 ft³/s; to tenths between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to three significant figures above 1,000 ft³/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 1.

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.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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 unetable 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. Ehike, 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 2.-- Map of New Mexico showing location of hydrologic units.

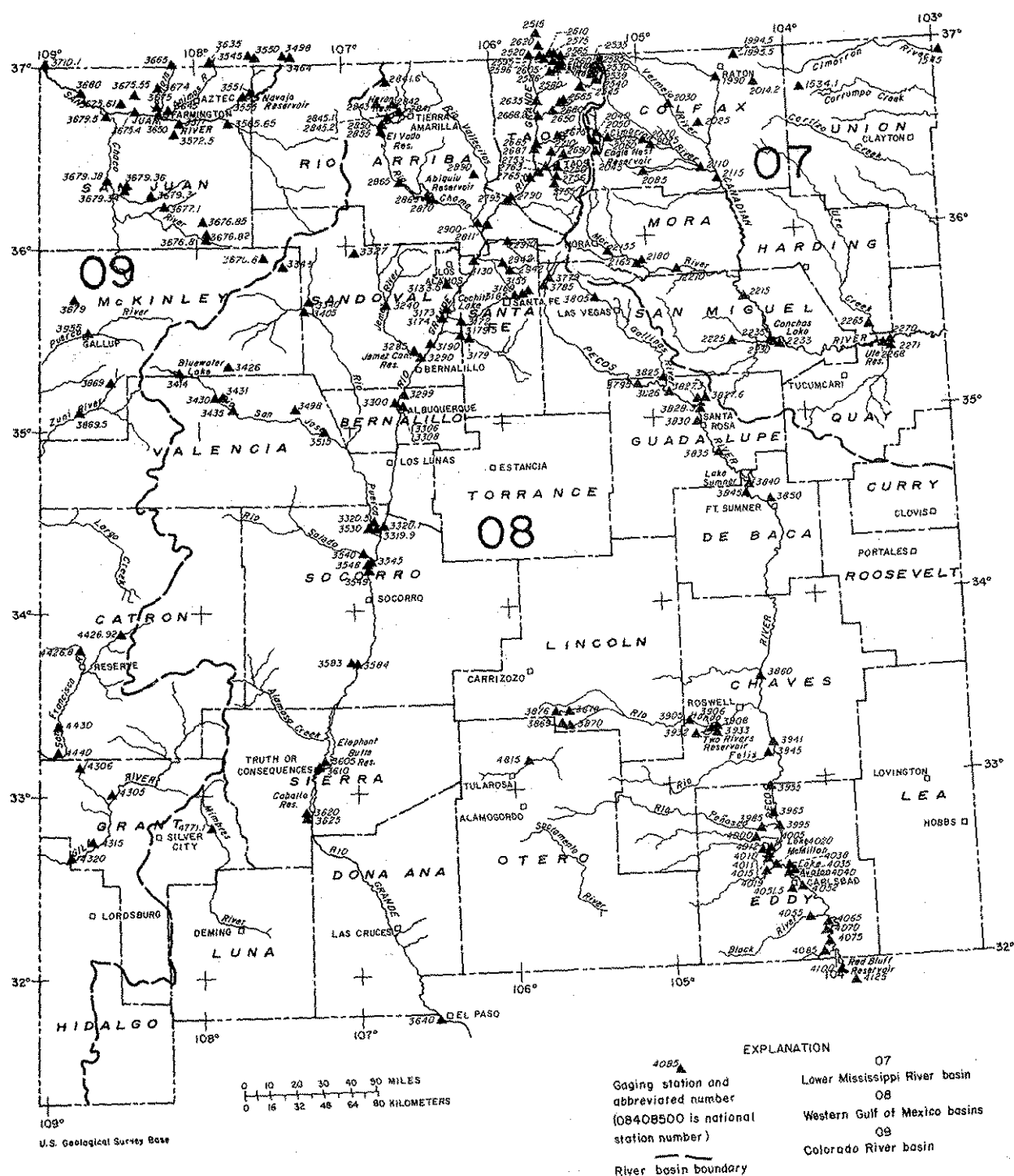
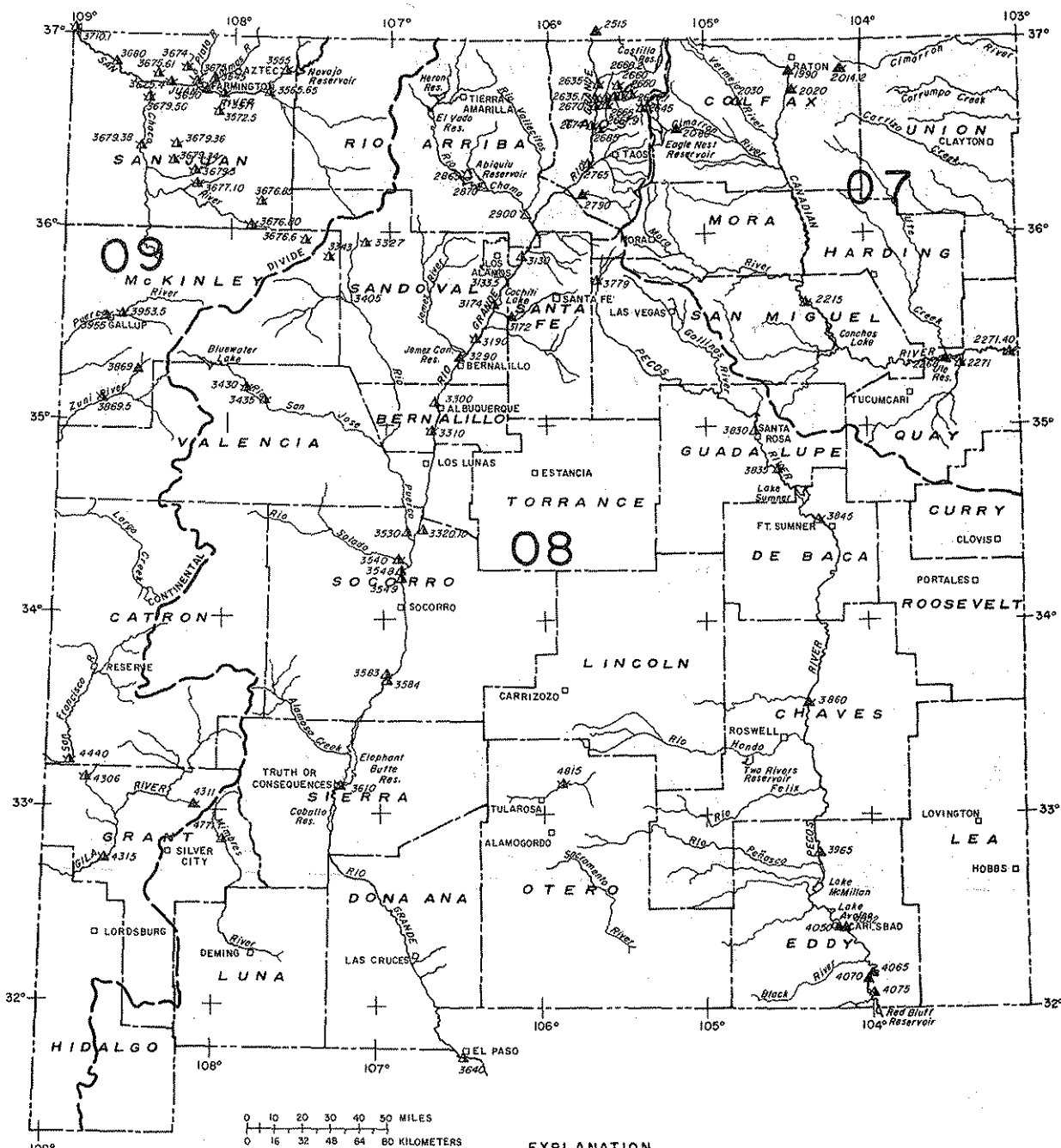


Figure 3.-- Map of New Mexico showing location of surface-water gaging stations.



Source: Geological Survey Base

STATION AND SAMPLING FREQUENCY

Chemical quality: \blacktriangle daily \triangle other than daily
 Suspended sediment: \triangle daily \triangle other than daily
 Chemical quality and
 Suspended sediment: \blacktriangle both daily \blacktriangle both other than daily
 \triangle daily chemical quality and other than daily suspended sediment \triangle daily suspended sediment and other than daily chemical quality

BASIN AND STATION NUMBER

River basin boundary: \sim
 Lower Mississippi River basin number: 07
 Western Gulf of Mexico basin number: 08
 Colorado River basin number: 09
 Number by symbol is abbreviated station number. Complete station number of example is:
07 227140
 Basin no. Station no.

Figure 4. -- 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 current year.

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 ft³/s (0.091 m³/s) Sept. 3, 1977, gage height, 1.36 ft (0.415 m), includes storm runoff between source and gage; minimum, 0.09 ft³/s (0.003 m³/s) Nov. 1, 1979, result of regulation.EXTREMES FOR CURRENT YEAR.--Maximum discharge, 0.38 ft³/s (0.011 m³/s) Dec. 6, gage height, 0.33 ft (0.101 m); maximum gage height, 1.29 ft (0.393 m) Oct. 30, backwater from unknown cause, minimum, 0.09 ft³/s (0.003 m³/s) Nov. 1, result of regulation.DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.21	.16	.24	.19	.16	.22	.20	.22	.23	.23	.27	.19
2	.19	.15	.24	.19	.18	.22	.19	.22	.24	.24	.25	.19
3	.19	.16	.24	.18	.16	.22	.19	.20	.25	.25	.27	.19
4	.18	.18	.25	.17	.15	.22	.17	.20	.23	.25	.28	.19
5	.18	.18	.26	.18	.16	.23	.19	.20	.22	.26	.28	.19
6	.18	.19	.27	.18	.17	.24	.19	.21	.22	.26	.28	.20
7	.18	.19	.27	.15	.17	.24	.20	.20	.22	.26	.26	.20
8	.18	.19	.28	.16	.17	.25	.18	.20	.22	.26	.26	.21
9	.18	.19	.28	.16	.17	.25	.19	.20	.23	.26	.26	.22
10	.18	.19	.27	.16	.17	.25	.19	.20	.23	.27	.25	.22
11	.18	.20	.28	.16	.18	.26	.19	.19	.23	.27	.25	.20
12	.18	.20	.27	.16	.18	.27	.17	.19	.26	.27	.24	.20
13	.18	.19	.27	.17	.18	.28	.18	.19	.27	.27	.24	.19
14	.17	.21	.25	.17	.18	.28	.18	.20	.26	.27	.24	.19
15	.16	.22	.25	.18	.18	.28	.18	.20	.25	.27	.23	.19
16	.16	.22	.25	.18	.19	.27	.17	.20	.26	.27	.23	.20
17	.16	.23	.25	.17	.19	.26	.17	.20	.27	.26	.23	.20
18	.16	.23	.23	.17	.19	.26	.17	.20	.26	.25	.22	.20
19	.17	.23	.23	.17	.19	.26	.18	.20	.27	.25	.22	.21
20	.17	.24	.24	.16	.19	.25	.18	.20	.28	.25	.22	.18
21	.19	.23	.23	.16	.20	.25	.16	.20	.27	.25	.22	.18
22	.19	.22	.22	.16	.20	.25	.17	.21	.25	.24	.21	.19
23	.19	.24	.23	.15	.20	.24	.17	.21	.25	.25	.21	.21
24	.17	.23	.22	.16	.20	.24	.19	.21	.24	.26	.21	.21
25	.17	.23	.22	.16	.20	.23	.16	.21	.24	.26	.20	.22
26	.17	.23	.20	.16	.21	.23	.17	.21	.25	.26	.21	.22
27	.17	.23	.20	.16	.21	.22	.18	.21	.24	.28	.21	.22
28	.19	.23	.21	.16	.21	.22	.19	.21	.23	.26	.19	.23
29	.19	.24	.20	.16	.21	.21	.19	.22	.22	.27	.19	.24
30	.18	.23	.18	.16	---	.21	.20	.22	.23	.26	.19	.24
31	.17	---	.18	.16	---	.20	---	.23	---	.28	.19	---
TOTAL	5.52	6.26	7.41	5.16	5.35	7.51	5.44	6.36	7.32	8.04	7.21	6.12
MEAN	.18	.21	.24	.17	.18	.24	.18	.21	.24	.26	.23	.20
MAX	.21	.24	.28	.19	.21	.28	.20	.23	.28	.28	.28	.24
MIN	.16	.15	.18	.15	.15	.20	.16	.19	.22	.23	.19	.18
AC-FT	11	12	15	10	11	15	11	13	15	16	14	12

CAL YR 1979 TOTAL 85.31 MEAN .23 MAX .38 MIN .15 AC-FT 169

WTR YR 1980 TOTAL 77.70 MEAN .21 MAX .28 MIN .15 AC-FT 154

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 mi² (2,865 km²), of which 68 mi² (176 km²) is probably noncontributing.

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

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 fair. Extensive diversions for irrigation above station.

AVERAGE DISCHARGE.--30 years (water years 1951-80), 22.3 ft³/s (0.632 m³/s), 16,160 acre-ft/yr (19.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,400 ft³/s (1,230 m³/s) Oct. 17, 1965, gage height, 22.32 ft (6.803 m), present datum, from rating curve extended above 7,000 ft³/s (198 m³/s) on basis of contracted-opening measurement of peak flow; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 207 ft³/s (5.86 m³/s) July 27, gage height, 7.50 ft (2.286 m), from highwater mark, no peak above base of 2,000 ft³/s (56.6 m³/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.03	2.0	1.5	1.5	4.9	6.3	.09	.00	.00	.00
2	.00	.00	.02	2.2	1.9	1.7	4.8	9.1	.06	.00	.00	.00
3	.00	.00	.53	1.9	2.1	1.8	4.7	6.5	.04	.00	.00	.00
4	.00	.00	.44	2.0	1.9	1.5	4.4	5.5	.00	.00	.00	.00
5	.00	.00	.38	1.6	1.3	1.3	3.7	4.7	.00	.00	.00	.00
6	.00	.00	.21	1.6	1.2	1.4	2.9	4.0	.00	.00	.00	.00
7	.00	.00	.27	1.0	1.9	1.3	2.3	3.5	.00	.00	.00	.00
8	.00	.00	.42	1.0	1.0	1.2	1.8	3.2	.00	.00	.00	.00
9	.00	.00	.37	1.2	1.4	1.1	1.7	2.8	.00	.00	.00	.00
10	.00	.00	.32	2.2	2.0	1.1	1.7	2.3	.11	.00	.00	.00
11	.00	.06	.61	1.5	1.8	1.2	1.8	2.0	.06	.00	.00	.00
12	.00	.13	.23	1.2	1.6	1.5	1.9	1.8	.00	.00	.00	.00
13	.00	.13	.46	1.3	1.5	.50	1.9	1.6	.00	.00	.00	.00
14	.00	.16	.58	1.1	1.2	.08	2.1	1.5	.00	.00	.00	.00
15	.00	.21	.40	1.5	1.4	.00	2.1	3.0	.00	.00	.00	.00
16	.00	.29	.47	1.9	1.3	.03	2.1	7.1	.00	.00	.00	.00
17	.00	.28	.53	1.2	1.7	.10	1.9	11	.00	.00	.00	.00
18	.00	.52	.53	1.1	2.0	.52	1.6	40	.00	.00	.00	.00
19	.00	1.4	.63	2.1	1.4	.72	1.4	16	.00	.00	.00	.00
20	.00	.43	.53	1.5	1.1	.94	1.4	9.0	.00	.00	.00	.00
21	.00	.39	.64	1.5	.95	.94	1.2	6.0	.00	.00	.00	.00
22	.00	.31	.59	1.0	.91	.31	.63	3.5	.00	.00	.00	.00
23	.00	.82	.81	.99	1.1	3.0	.45	2.2	.00	.00	.00	.00
24	.00	1.0	2.0	1.2	1.4	3.7	4.0	2.0	.00	.00	.00	.00
25	.00	.70	2.6	1.1	1.2	2.6	13	2.0	.00	.00	.00	.00
26	.00	.19	2.6	.63	1.2	1.8	12	1.8	.00	.00	.00	.00
27	.00	.09	3.1	.66	1.2	3.5	5.8	1.8	.00	40	38	.00
28	.00	.06	3.9	.78	1.3	3.8	4.9	1.5	.00	1.0	.27	.00
29	.00	.02	2.3	.80	1.3	2.0	4.2	.31	.00	.00	.00	.00
30	.00	.06	1.6	1.0	---	1.8	3.9	.16	.00	.00	.00	.00
31	.00	---	1.4	.97	---	2.2	---	.16	---	.00	.00	---
TOTAL	.00	7.25	29.50	41.73	41.76	45.14	101.18	162.33	.36	41.00	38.27	.00
MEAN	.000	.24	.95	1.35	1.44	1.46	3.37	5.24	.012	1.32	1.23	.000
MAX	.00	1.4	3.9	2.2	2.1	3.8	13	40	.11	40	38	.00
MIN	.00	.00	.02	.63	.91	.00	.45	.16	.00	.00	.00	.00
AC-FT	.00	14	59	83	83	90	201	322	.7	81	76	.00
CAL YR 1979	TOTAL	3798.89	MEAN	10.4	MAX	1740	MIN	.00	AC-FT	7540		
WTR YR 1980	TOTAL	508.52	MEAN	1.39	MAX	40	MIN	.00	AC-FT	1010		

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 mi² (593 km²).

WATER-DISCHARGE RECORDS

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.--Water-discharge 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.--34 years, 7.14 ft³/s (0.202 m³/s), 5,170 acre-ft/yr (6.37 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62,400 ft³/s (1,770 m³/s) June 17, 1965, gage height, 28.2 ft (8.60 m), from floodmarks, present datum, from rating curve extended above 1,300 ft³/s (37 m³/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.--Maximum discharge, 3,440 ft³/s (97.4 m³/s) at 0200 hours May 16, gage height, 6.05 ft (1.844 m), from rating curve extended above 250 ft³/s (7.1 m³/s) as explained above, no other peak above base of 1,000 ft³/s (28 m³/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.02	.06	.05	.10	.08	.08	7.5	4.0	.01	.00	.00
2	.00	.03	.08	.05	.15	.08	.11	13	4.0	.01	.00	.00
3	.01	.03	.08	.05	.20	.08	.08	15	2.0	.01	.03	.00
4	.01	.04	.08	.05	.30	.08	.06	44	.17	.01	.03	.00
5	.01	.04	.08	.05	.20	.08	.06	56	.14	.01	.00	.00
6	.01	.04	.08	.06	.20	.08	.04	83	.14	.00	.00	.00
7	.01	.04	.08	.06	.20	.08	.04	86	.14	.00	.00	.00
8	.01	.04	.08	.06	.10	.08	.04	225	.14	.01	.00	.00
9	.01	.04	.08	.06	.05	.08	.04	102	.17	.01	.00	.00
10	.01	.08	.08	.08	.10	.08	.06	21	.21	.01	.00	.00
11	.01	.11	.08	.05	.10	.08	.06	7.0	.21	.00	.00	.00
12	.01	.08	.08	.05	.10	.06	.06	7.5	.14	.00	.00	.00
13	.01	.08	.08	.08	.10	.06	.06	2.0	.11	.00	.00	.00
14	.01	.08	.08	.10	.14	.06	.06	2.5	.11	.00	.00	9.0
15	.01	.08	.08	.11	.14	.06	.06	101	.11	.00	.01	12
16	.01	.08	.06	.05	.14	.08	.04	1310	.11	.00	.00	.02
17	.01	.08	.06	.04	.14	.08	.03	652	.17	.00	.00	.00
18	.01	.08	.06	.02	.11	.08	.03	329	.14	22	.00	.00
19	.01	.08	.06	.02	.08	.08	.03	199	.14	2.6	.00	.00
20	.02	.08	.06	.03	.08	.08	.03	130	.14	.04	.00	.00
21	.02	.05	.08	.03	.08	.08	.03	85	.14	.12	.00	.00
22	.02	.02	.08	.03	.08	.08	.03	50	.14	.06	.00	.00
23	.02	.05	.08	.05	.08	.06	.03	30	.11	.04	.00	.00
24	.02	.11	.06	.06	.08	.06	.14	10	.11	.04	.00	.00
25	.02	.11	.05	.08	.08	.06	.08	3.5	.06	.03	.00	.00
26	.02	.11	.05	.05	.08	.06	.04	1.0	.04	.03	.00	.00
27	.02	.11	.10	.04	.08	.06	.04	.50	.04	.04	.00	.00
28	.02	.10	.05	.03	.08	.06	.03	.17	.03	.03	.00	.00
29	.02	.05	.03	.04	.08	.06	.91	2.4	.03	.03	.01	.00
30	.02	.05	.03	.06	---	.06	3.7	4.0	.02	.00	.00	.00
31	.02	---	.04	.06	---	.06	---	1.5	---	.00	.00	---
TOTAL	.41	1.99	2.13	1.65	3.45	2.22	6.10	3580.57	13.21	25.14	.08	21.02
MEAN	.013	.066	.069	.053	.12	.072	.20	116	.44	.81	.003	.70
MAX	.02	.11	.10	.11	.30	.08	3.7	1310	4.0	22	.03	.12
MIN	.00	.02	.03	.02	.05	.06	.03	.17	.02	.00	.00	.00
AC-FT	.8	3.9	4.2	3.3	6.8	4.4	12	7100	26	50	.2	42

CAL YR 1979 TOTAL 814.69 MEAN 2.23 MAX 145 MIN .00 AC-FT 1620
WTR YR 1980 TOTAL 3657.97 MEAN 9.99 MAX 1310 MIN .00 AC-FT 7260

ARKANSAS RIVER BASIN

07199000 CANADIAN RIVER NEAR HEBRON, NM -- Continued

WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (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 17...	1525	.01	3920	8.1	9.0	1700	1500	370	180	400	4.3	10
NOV 14...	1315	.09	3410	7.7	9.5	1500	1300	310	170	370	4.2	7.1
DEC 07...	1300	.08	2950	7.8	.5	1100	920	230	120	310	4.1	4.7
JAN 09...	1220	.06	3530	7.7	2.0	1200	910	260	140	450	5.6	6.0
MAR 05...	1330	.08	3410	7.6	14.0	1400	1200	300	160	360	4.2	7.0
APR 01...	1045	.11	3010	7.7	2.5	1300	1100	280	140	260	3.2	4.7
MAY 28...	1400	.14	2250	7.7	--	930	670	220	92	230	3.3	5.4
JUN 25...	1145	.08	2870	7.8	25.0	1100	910	250	120	290	3.8	6.9
JUL 22...	1310	.06	2900	8.3	31.0	1200	1000	270	130	300	3.8	9.4
SEP 18...	1245	.00	4000	8.2	19.5	1600	1400	370	170	440	4.8	10

DATE	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHOPH DIS- DISSOL. (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT 17...	190	2300	27	.3	8.9	--	3410	.04	--	--	--
NOV 14...	210	1900	23	.2	7.1	3130	2910	.24	.000	70	10
DEC 07...	150	1500	22	.2	8.3	--	2290	.05	--	--	--
JAN 09...	320	2000	24	.3	11	--	3080	.01	--	--	--
MAR 05...	240	1900	25	.2	8.7	--	2910	.10	--	--	--
APR 01...	220	1500	22	.2	8.3	--	2350	.03	--	--	--
MAY 28...	260	1100	21	.1	9.7	1930	1830	.00	.000	60	20
JUN 25...	210	1400	26	.5	6.1	--	2230	.00	--	--	--
JUL 22...	190	1600	24	.5	5.6	--	2450	.01	--	--	--
SEP 18...	200	2200	39	.3	6.9	--	3360	.00	--	--	--

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 mi² (53.9 km²).

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 m³). Reservoir enlarged in 1916; capacity, 1,130 acre-ft (1.39 hm³), spillway elevation, 7,479.0 ft (2,279.60 m). Reservoir enlarged again in 1948; capacity, 3,690 acre-ft (4.55 hm³), 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 hm³) 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 hm³) Feb. 28, 1979, elevation, 7,479.85 ft (2,279.858 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 3,690 acre-ft (4.55 hm³) May 31, elevation, 7,511.00 ft (2,289.35 m); minimum observed, 1,780 acre-ft (2.19 hm³) Jan. 31, elevation, 7,492.65 ft (2,283.760 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 mi² (76.1 km²).

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 m³), spillway elevation, 7,078.0 ft (2,157.37 m). Reservoir rehabilitated in 1941; capacity, 71 acre-ft (87,500 m³), 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 m³) Apr. 30, May 31, 1980, elevation, 7,089.60 ft (2,160.910 m); minimum observed, 40 acre-ft (49,300 m³) May 31, 1978, elevation, 7,083.27 ft (2,158.981 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 71 acre-ft (87,500 m³) Apr. 30, May 31, elevation, 7,089.60 ft (2,160.910 m); minimum observed, 45 acre-ft (55,500 m³) Aug. 31.

MONTHEND ELEVATION AND CONTENTS AND MONTHLY DIVERSIONS, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

	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, 1979..	7,496.16	2,090	-	-	a60	-	-
Oct. 31.....	7,494.88	1,980	-110	-	a60	0	98
Nov. 30.....	7,494.33	1,930	-50	-	a60	0	80
Dec. 31.....	7,494.07	1,910	-20	-	a60	0	80
CAL YR 1979	-	-	b+930	-	-	-2	1,180
Jan. 31, 1980...	7,492.65	1,780	-130	7,087.66	60	0	78
Feb. 29.....	7,493.81	1,880	+100	7,087.65	60	0	72
Mar. 31.....	7,493.81	1,880	0	7,089.00	67	+7	82
Apr. 30.....	7,504.20	2,910	+1,030	7,089.60	71	+4	91
May 31.....	7,511.00	3,690	+780	7,089.60	71	0	111
June 30.....	7,509.98	3,570	-120	7,089.30	69	-2	198
July 31.....	7,508.25	3,360	-210	7,087.75	61	-8	249
Aug. 31.....	7,506.05	3,120	-240	7,084.50	45	-16	183
Sept. 30.....	7,505.36	3,040	-80	7,087.40	59	+14	121
WTR YR 1980	-	-	+950	-	-	-1	1,440

a Estimated.

b Computed from capacity table effective Jan. 1, 1979.

NOTE.--Monthly diversions in acre-feet from Lake Maloya and Lake Alice for water year October 1975 to September 1976, omitted from WDR NM-76-1, are given in the following table:

Oct. 142	Dec. 93	Feb. 89	Apr. 162	June 183	Aug. 169
Nov. 91	Jan. 89	Mar. 114	May 186	July 206	Sept. 176

Water Year 1976 1,700 ac-ft.

ARKANSAS RIVER BASIN

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 mi² (128.2 km²).

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 5 ft³/s (0.14 m³/s), which are poor. Flow regulated by Throttle Reservoir, capacity 3,300 acre-ft (4.07 hm³) 1 mi (1.6 km) upstream.AVERAGE DISCHARGE.--5 years, 1.72 ft³/s (0.049 m³/s), 1,250 acre-ft/yr (1.54 hm³/yr).EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 526 ft³/s (14.9 m³/s) Sept. 4, 1977, gage height, 4.24 ft (1.292 m), from rating curve extended above 5.9 ft³/s (0.17 m³/s) on basis of slope-area measurement of peak flow; no flow at times.EXTREMES FOR CURRENT YEAR.--Maximum discharge, 118 ft³/s (3.34 m³/s) May 16, gage height, 2.80 ft (0.853 m), from rating curve extended above 9.1 ft³/s (0.258 m³/s) as explained above; no flow Sept. 21-30.DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	.18	.09	.10	.20	.02	2.3	1.6	8.6	3.8	5.6	1.8
2	3.9	.16	.05	.10	.20	.02	2.1	30	8.6	3.8	5.6	1.8
3	3.8	.15	.08	.10	.20	1.6	1.9	59	8.6	3.8	4.4	1.8
4	3.8	.15	.07	.10	.19	3.7	1.6	29	8.6	5.6	3.4	1.8
5	3.8	.15	.07	.10	.05	2.9	1.6	8.2	8.6	3.3	5.7	1.7
6	3.7	.15	.08	.10	.06	2.5	1.6	8.1	8.6	4.6	5.7	.56
7	3.7	.15	.08	.10	.04	2.6	1.4	4.8	8.6	6.6	4.6	.06
8	2.9	.15	.05	.12	.04	2.5	1.4	3.1	8.8	5.9	6.1	.03
9	4.0	.15	.05	.15	.03	2.5	1.7	3.2	8.9	5.3	5.5	.05
10	5.6	.20	.07	.20	.04	2.7	1.6	3.2	8.7	5.3	4.1	.06
11	5.6	.20	.10	.15	.03	2.7	1.6	3.1	8.7	5.3	2.8	.04
12	5.7	.20	.10	.15	.03	2.6	1.6	3.2	8.9	5.6	2.8	.03
13	5.5	.20	.10	.20	.03	2.7	1.6	3.2	8.9	6.3	2.7	.02
14	5.5	.20	.10	.22	.04	2.6	1.6	3.3	8.9	6.3	3.7	.23
15	5.6	.20	.10	.24	.03	2.5	1.7	5.4	8.9	6.3	3.8	.15
16	5.5	.20	.10	.23	.03	2.6	1.6	86	8.6	6.3	3.7	.03
17	5.1	.20	.10	.20	.03	2.6	.93	47	8.6	4.8	3.6	.03
18	4.7	.20	.10	.15	.03	2.5	.67	20	8.6	4.8	3.4	.02
19	4.3	.20	.10	.14	.03	2.6	.62	13	8.6	3.4	2.6	.01
20	3.3	.20	.10	.13	.03	2.6	.62	11	8.6	3.5	1.3	.01
21	2.4	.15	.10	.15	.02	2.6	.70	8.1	8.6	4.3	1.2	.00
22	1.4	.10	.10	.19	.02	2.6	.76	7.9	8.3	4.8	1.2	.00
23	.80	.10	.10	.20	.02	2.6	.80	8.1	8.3	5.0	1.2	.00
24	.70	.10	.10	.25	.02	2.6	1.2	8.4	5.1	5.1	1.2	.00
25	.58	.10	.10	.26	.02	2.7	1.2	11	4.2	5.3	1.2	.00
26	.50	.10	.10	.25	.02	2.7	1.1	11	4.1	5.3	1.2	.00
27	.40	.10	.10	.20	.02	2.7	1.1	11	3.8	5.3	1.7	.00
28	.35	.10	.05	.15	.02	2.6	1.1	7.7	3.8	5.2	2.4	.00
29	.30	.10	.05	.15	.02	2.5	1.1	8.7	3.8	5.5	2.4	.00
30	.25	.09	.05	.20	---	3.8	1.8	8.6	3.8	5.5	2.3	.00
31	.20	---	.05	.20	---	2.5	---	8.6	---	5.5	1.9	---
TOTAL	97.68	4.63	2.59	5.18	1.54	76.94	40.60	444.5	227.7	157.4	99.0	10.23
MEAN	3.15	.15	.084	.17	.053	2.48	1.35	14.3	7.59	5.08	3.19	.34
MAX	5.7	.20	.10	.26	.20	3.8	2.3	86	8.9	6.6	6.1	1.8
MIN	.20	.09	.05	.10	.02	.02	.62	1.6	3.8	3.3	1.2	.00
AC-FT	194	9.2	5.1	10	3.1	153	81	882	452	312	196	20
CAL YR 1979 TOTAL	632.79		MEAN 1.73	MAX 8.3	MIN .00	AC-FT 1260						
WTR YR 1980 TOTAL	1167.99		MEAN 3.19	MAX 86	MIN .00	AC-FT 2320						

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

WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS 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												
17...	0900	5.1	526	8.3	9.0	230	58	55	22	19	.5	4.1
NOV												
14...	1105	.22	706	7.7	1.0	310	87	67	34	33	.8	4.0
DEC												
07...	0945	.08	587	7.6	.5	270	100	61	29	30	.8	2.5
JAN												
09...	1000	.37	728	7.9	2.0	330	110	79	32	28	.7	3.8
MAR												
05...	1045	2.6	532	7.4	6.5	230	75	56	23	18	.5	3.3
APR												
01...	1430	2.1	1100	8.0	1.5	520	330	110	60	62	1.2	3.4
MAY												
28...	1600	9.1	357	7.6	--	160	45	39	14	11	.4	3.1
JUN												
25...	1000	4.3	423	7.6	19.0	180	43	47	16	13	.4	3.8
JUL												
22...	1050	5.1	426	8.1	21.5	190	61	45	19	15	.5	3.8
AUG												
20...	1120	1.3	509	7.6	19.0	220	57	49	23	22	.7	4.3

DATE	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHOPH- OSPHATE DISSOL. (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT											
17...	170	110	2.5	.3	5.1	--	320	.02	--	--	--
NOV											
14...	220	170	4.2	.3	6.6	--	453	.38	--	--	--
DEC											
07...	170	140	3.7	.3	6.9	--	376	.09	--	--	--
JAN											
09...	220	160	4.2	.3	7.5	--	448	.14	--	--	--
MAR											
05...	160	120	2.7	.2	5.6	--	326	.23	--	--	--
APR											
01...	190	350	78	.4	13	--	792	.24	--	--	--
MAY											
28...	110	61	1.6	.1	11	226	207	.03	.030	30	,10
JUN											
25...	140	71	2.1	.4	9.5	--	249	.37	--	--	--
JUL											
22...	130	79	1.9	.4	10	--	252	.03	--	--	--
AUG											
20...	160	110	2.8	.3	11	--	320	.39	--	--	--

ARKANSAS RIVER BASIN

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 mi² (987 km²).

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

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (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												
17...	1600	2.8	1230	8.2	10.5	510	310	100	62	75	1.5	5.2
NOV												
14...	1215	1.6	1980	8.0	4.0	760	540	140	100	190	3.0	5.1
DEC												
07...	1200	2.0	1130	7.5	1.5	440	310	100	47	80	1.7	2.8
JAN												
09...	1100	1.4	2390	7.6	2.0	900	580	180	110	240	3.5	8.2
MAR												
05...	1235	1.4	2630	7.4	9.0	970	710	190	120	310	4.3	9.1
APR												
01...	0930	1.2	1870	7.7	4.5	750	500	140	97	160	2.5	4.2
MAY												
28...	1700	14	766	7.5	--	290	110	62	32	57	1.5	3.1
JUN												
25...	1100	.01	2620	7.9	26.0	940	700	180	120	280	4.0	5.8
JUL												
22...	1210	2.3	1130	7.1	21.0	440	330	99	48	73	1.5	9.2
AUG												
20...	1200	.19	1540	8.2	23.0	700	500	130	90	110	1.8	5.0
SEP												
18...	1130	.31	1470	8.1	19.5	620	410	110	83	110	1.9	5.1
DATE		ALKA- LINITY (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 CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHOPH- OSPHATE DISSOL. (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT												
17...	200	430	9.3	.4	10	904	812	.02	.010	110	<10	
NOV												
14...	220	890	33	.3	9.0	--	1500	1.0	--	--	--	
DEC												
07...	130	430	17	.3	7.0	--	775	2.9	--	--	--	
JAN												
09...	320	1000	48	.5	14	--	1800	.66	--	--	--	
MAR												
05...	260	1200	66	.6	10	--	2110	10	--	--	--	
APR												
01...	250	740	21	.4	4.9	--	1320	.06	--	--	--	
MAY												
28...	180	230	7.7	.3	10	522	510	.01	.000	50	<10	
JUN												
25...	240	1200	29	.5	3.7	--	1960	.09	--	--	--	
JUL												
22...	110	490	11	.5	6.8	--	805	.38	--	--	--	
AUG												
20...	200	690	14	.4	6.9	--	1170	.00	--	--	--	
SEP												
18...	210	580	13	.4	6.6	--	1040	.24	--	--	--	

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.--9 years (water years 1946-49, 1976-80), 4.78 ft³/s (0.135 m³/s), 3,460 acre-ft/yr (4.27 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 217 ft³/s (6.15 m³/s) Aug. 27, 1946, from rating curve extended above 85 ft³/s (2.4 m³/s); no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 214 ft³/s (6.06 m³/s) May 17, from rating curve extended above 55 ft³/s (1.6 m³/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.20	.30	.45	.06	.27	51	4.1	.00	.00	.00
2	.00	.11	.30	.25	.45	.06	.22	44	4.2	.00	.00	.00
3	.00	.14	.40	.25	.50	.08	.24	44	3.4	.00	.00	.00
4	.00	2.5	.50	.25	.60	.08	.50	61	1.9	.00	.00	.00
5	.00	1.7	.40	.30	.50	.06	.62	61	1.2	.00	.00	.00
6	.00	1.4	.40	.30	.60	.07	.66	53	.44	.00	.00	.00
7	.00	1.6	.40	.30	.50	.14	.76	43	.09	.00	.00	.00
8	.00	2.9	.40	.30	.40	.10	.58	83	.00	.00	.00	.00
9	.00	1.5	.50	.30	.45	.10	.44	102	2.5	.00	.00	.00
10	.00	1.2	.50	.35	.45	.08	.34	81	4.6	.00	.00	.00
11	.00	1.1	.40	.30	.50	.12	.29	64	5.7	.00	.00	.00
12	.00	1.3	.30	.30	.45	.12	.26	53	4.6	.00	.00	.00
13	.00	.88	.20	.35	.50	.06	.26	44	3.6	.00	.00	.00
14	.00	.60	.15	.40	.60	.12	.26	38	2.9	.00	.00	.00
15	.00	.78	.19	.40	.70	.19	.24	58	2.4	.00	1.0	.00
16	.04	.78	.15	.40	.60	.12	.28	184	.61	.00	.16	.00
17	.33	.43	.20	.40	.60	.06	.28	214	.08	.00	.05	.00
18	.63	1.1	.25	.40	.70	.02	.26	132	.01	.00	.00	.00
19	1.3	.65	.27	.35	.70	.01	.16	94	.00	.00	.00	.00
20	1.1	.50	.36	.35	.65	.00	.03	74	.00	.00	.00	.00
21	1.0	.25	.30	.35	.55	.00	.00	63	.00	.00	.00	.00
22	.50	.10	.20	.35	.30	.00	.00	49	.00	40	.00	.00
23	.37	.20	.15	.35	.14	.06	.06	42	.02	1.6	.00	.00
24	.28	.30	.20	.40	.07	.02	.38	35	.03	.25	.00	.00
25	.18	.40	.30	.40	.04	.06	1.2	27	.17	.36	.00	.00
26	.00	.50	.30	.35	.02	.14	6.3	23	.01	.08	.00	.00
27	.00	.25	.20	.40	.02	.12	4.7	20	.00	.00	.00	.00
28	.00	.10	.15	.40	.06	.12	3.9	15	.00	.00	.00	.00
29	.00	.10	.15	.40	.06	.16	32	9.2	.00	.00	.00	.00
30	.00	.15	.20	.40	---	.25	40	5.7	.00	.00	.00	.00
31	.00	---	.20	.40	---	.29	---	4.2	---	.00	.00	---
TOTAL	5.73	23.52	8.82	10.75	12.16	2.87	95.49	1871.1	42.56	42.29	1.21	.00
MEAN	.19	.78	.28	.35	.42	.093	3.18	60.4	1.42	1.36	.039	.000
MAX	1.3	2.9	.50	.40	.70	.29	.40	214	5.7	40	1.0	.00
MIN	.00	.00	.15	.25	.02	.00	.00	4.2	.00	.00	.00	.00
AC-FT	11	47	17	21	24	5.7	189	3710	84	84	2.4	.00

CAL YR 1979 TOTAL 888.98 MEAN 2.44 MAX 93 MIN .00 AC-FT 1760
WTR YR 1980 TOTAL 2116.50 MEAN 5.78 MAX 214 MIN .00 AC-FT 4200

ARKANSAS RIVER BASIN

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), revised.
DRAINAGE AREA.--301 mi² (780 km²).

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 good except those for winter period, which are poor. Diversions for irrigation of small acreage and mountain meadows above station.

AVERAGE DISCHARGE.--56 years (water years 1916-17, 1920, 1928-80), 17.9 ft³/s (0.507 m³/s), 12,970 acre-ft/yr (16.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1926).--Maximum discharge, 12,600 ft³/s (357 m³/s) June 17, 1965, gage height, 15.25 ft (4.648 m), from rating curve extended above 400 ft³/s (11 m³/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 ft³/s (280 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 464 ft³/s (13.1 m³/s) May 16, gage height, 5.04 ft (1.536 m), from rating curve extended above 130 ft³/s (3.7 m³/s) as explained above, no peak above base of 800 ft³/s (23 m³/s); minimum, 1.0 ft³/s (0.028 m³/s) Mar. 18, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	4.6	1.9	3.0	4.5	3.4	4.5	54	96	28	13	4.5
2	3.0	4.5	2.2	3.7	5.0	3.6	4.8	57	92	35	25	4.5
3	3.0	5.3	3.7	3.3	6.0	3.7	5.9	49	84	34	21	3.9
4	3.1	5.9	5.0	2.5	6.6	3.7	6.1	64	81	29	15	3.1
5	3.2	6.1	5.3	2.7	6.6	2.9	6.0	80	86	25	12	2.4
6	3.1	5.4	4.7	5.0	4.2	2.9	6.0	133	80	23	12	3.3
7	3.4	5.3	6.0	4.7	3.3	2.7	6.0	128	82	24	12	6.1
8	3.4	5.4	4.5	2.8	2.8	2.5	5.0	135	82	25	13	6.2
9	2.9	5.5	4.0	2.7	3.0	2.9	4.5	118	89	23	21	9.2
10	3.2	6.5	4.7	4.5	3.0	3.5	5.4	104	88	21	21	13
11	3.3	6.3	4.7	7.0	3.5	3.4	5.6	100	84	22	15	18
12	2.5	5.3	4.5	6.0	3.5	2.7	7.1	93	74	19	12	10
13	2.3	5.3	4.5	8.8	3.5	1.9	6.0	81	68	18	10	7.7
14	2.4	4.7	5.0	7.8	3.8	2.0	6.0	75	67	17	13	7.2
15	2.7	3.0	5.0	7.2	4.0	2.0	5.5	91	63	13	14	6.5
16	2.2	4.0	4.0	5.3	4.0	3.2	6.0	248	58	11	13	5.3
17	2.5	5.5	4.5	4.4	4.0	2.5	5.8	173	53	10	9.7	5.0
18	2.9	6.7	5.0	4.0	4.5	2.8	5.2	138	50	7.6	9.2	4.3
19	3.4	6.0	5.0	5.1	4.8	3.0	4.5	119	49	9.7	7.8	3.7
20	4.2	6.4	5.0	6.3	4.8	2.7	7.2	113	49	11	5.7	3.2
21	4.4	4.5	5.0	4.5	4.3	2.6	9.3	122	45	11	4.8	2.9
22	4.9	2.7	5.0	3.7	3.8	2.4	10	135	44	29	4.5	2.3
23	4.7	3.7	5.0	4.0	3.8	3.0	14	148	39	23	4.0	2.2
24	4.5	3.5	4.5	4.5	4.1	3.5	19	148	34	14	4.3	2.3
25	3.2	4.2	4.4	6.6	3.9	3.8	20	141	33	12	4.2	2.5
26	3.4	5.6	5.0	5.0	3.8	4.5	21	128	32	15	4.4	2.0
27	3.3	5.3	4.5	3.5	4.6	4.5	21	116	30	14	5.1	1.7
28	3.6	3.5	4.0	2.7	5.4	5.0	27	109	31	12	4.3	2.0
29	3.9	2.8	2.7	3.5	4.3	4.0	37	109	30	11	3.5	2.8
30	4.2	2.5	3.0	4.0	---	4.5	44	103	29	10	3.6	2.3
31	4.2	---	2.8	4.0	---	5.0	---	96	---	14	4.6	---
TOTAL	104.4	146.0	135.1	142.8	123.4	100.8	335.4	3508	1821	570.3	321.7	150.1
MEAN	3.37	4.87	4.36	4.61	4.26	3.25	11.2	113	60.7	18.4	10.4	5.00
MAX	4.9	6.7	6.0	8.8	6.6	5.0	44	248	96	35	25	18
MIN	2.2	2.5	1.9	2.5	2.8	1.9	4.5	49	29	7.6	3.5	1.7
AC-FT	207	290	268	283	245	200	665	6960	3610	1130	638	298

CAL YR 1979 TOTAL 6441.0 MEAN 17.6 MAX 200 MIN 1.5 AC-FT 12780
WTR YR 1980 TOTAL 7459.0 MEAN 20.4 MAX 248 MIN 1.7 AC-FT 14790

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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (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 18...	1000	3.1	507	8.2	13.0	--	--	--	--	--	--	--
JAN 09...	1430	2.8	489	8.2	3.0	170	21	47	13	35	1.2	1.8
MAR 05...	1430	3.0	481	8.3	13.0	170	24	50	12	31	1.0	1.9
APR 01...	1230	5.0	456	8.5	2.0	--	--	--	--	--	--	--
MAY 28...	1115	110	227	7.8	12.0	100	18	31	5.5	9.5	.4	1.4
JUN 25...	1500	32	291	8.0	22.0	--	--	--	--	--	--	--
AUG 20...	1200	4.8	394	8.8	23.0	--	--	--	--	--	--	--
SEP 17...	1400	4.3	835	8.2	22.0	320	110	83	28	59	1.4	--

DATE	ALKA- LINITY (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 CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHOPH DISSOL. (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT 18...	--	--	--	--	--	--	--	--	--	--	--
JAN 09...	150	100	4.7	.7	9.5	306	302	.12	.010	20	<10
MAR 05...	150	89	4.8	.6	7.6	297	291	.93	.000	30	<10
APR 01...	--	--	--	--	--	--	--	--	--	--	--
MAY 28...	82	35	4.2	.3	13	154	149	.00	.010	30	50
JUN 25...	--	--	--	--	--	--	--	--	--	--	--
AUG 20...	--	--	--	--	--	--	--	--	--	--	--
SEP 17...	210	230	6.8	.7	11	584	545	.00	.000	70	<10

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT 18...	1000	3.1	13.0	5	.04
NOV 15...	0940	2.4	.5	16	.10
JAN 09...	1430	2.8	3.0	15	.12
MAR 05...	1430	3.0	13.0	31	.25
APR 01...	1230	5.0	2.0	17	.23
JUN 25...	1500	32	22.0	28	2.4
AUG 20...	1200	4.8	23.0	152	2.0

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 mi² (191.1 km²).

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 km²) above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 240 ft³/s (6.80 m³/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.--Peak discharges above base of 35 ft³/s (0.99 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
May 8	0930	*69	1.954	2.85	0.869	May 23	1415	55	1.558	2.70	0.823
May 16	0215	60	1.699	2.76	.841						

Minimum discharge determined, 0.17 ft³/s (0.005 m³/s) Sept. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FFB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	2.8				---	5.7	33	25	.80	.39	.26
2	1.6	2.8				---	5.8	33	23	.74	.79	.23
3	1.5	2.7				---	5.2	35	21	.69	1.1	.22
4	1.4	2.6				---	5.6	35	18	.69	.62	.22
5	1.4	2.6				---	6.4	39	16	.69	.50	.25
6	1.3	2.5				6.5	7.8	51	14	.55	.48	.30
7	1.3	2.7				6.0	8.0	48	12	.62	.48	.29
8	1.3	2.9				5.8	7.3	62	12	.63	.74	.26
9	1.3	3.0				5.0	8.5	61	12	.60	2.6	.33
10	1.3	3.0				5.0	9.7	57	11	.57	1.6	.62
11	1.3	2.7				5.6	10	55	8.4	.50	1.2	.79
12	1.3	2.7				4.8	8.9	49	7.5	.49	1.1	.54
13	1.2	2.3				4.9	8.9	44	6.8	.46	.91	.45
14	1.3	---				5.2	8.8	40	5.4	.42	.81	.44
15	1.3	---				7.3	9.3	47	4.6	.40	.86	.42
16	1.3	---				7.3	11	54	4.2	.38	.72	.38
17	1.3	---				5.4	12	47	3.7	.38	.61	.34
18	1.9	---				5.6	14	39	3.3	.38	.52	.33
19	2.0	---				6.1	16	40	3.0	.43	.44	.30
20	1.8	---				5.8	18	40	2.8	.43	.38	.28
21	2.2	---				6.3	19	44	2.1	.42	.36	.26
22	2.6	---				6.6	21	49	1.8	.46	.34	.26
23	2.5	---				5.7	22	53	1.6	.47	.35	.29
24	2.4	---				5.4	22	53	1.4	.49	.36	.28
25	2.2	---				6.3	18	48	1.3	.45	.41	.28
26	2.1	---				5.3	20	43	1.2	.38	.35	.30
27	2.0	---				5.6	21	39	1.1	.35	.33	.30
28	2.0	---				5.4	25	36	.97	.33	.32	.32
29	2.0	---				5.3	27	32	.96	.33	.31	.31
30	2.2	---				5.4	29	31	.85	.35	.30	.29
31	2.5	---				4.9	---	28	---	.41	.27	---
TOTAL	53.5	---	---	---	---	---	410.9	1365	226.98	15.29	20.55	10.14
MEAN	1.73	---	---	---	---	---	13.7	44.0	7.57	.49	.66	.34
MAX	2.6	---	---	---	---	---	29	62	25	.80	2.6	.79
MIN	1.2	---	---	---	---	---	5.2	28	.85	.33	.27	.22
AC-FT	106	---	---	---	---	---	815	2710	450	30	41	20

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 mi² (145 km²).

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 fair. Diversions for irrigation of about 1,000 acres (4.0 km²) above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 505 ft³/s (14.3 m³/s) June 16, 1965, gage height, 5.61 ft (1.710 m), from rating curve extended above 110 ft³/s (3.1 m³/s); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 192 ft³/s (5.44 m³/s) at 2200 hours May 8, gage height, 5.02 ft (1.530 m), no other peak above base of 70 ft³/s (2.0 m³/s); maximum gage height determined, 5.23 ft (1.594 m) Apr. 25, backwater from snow; minimum discharge determined, 0.53 ft³/s (0.015 m³/s).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	3.0				---	7.2	79	37	3.8	2.1	1.3
2	1.7	3.2				---	7.2	71	33	3.9	2.3	1.2
3	1.7	3.3				---	6.8	70	30	3.5	5.4	1.1
4	1.7	3.2				---	8.6	83	28	3.4	4.3	1.2
5	1.7	3.1				---	11	118	26	3.3	2.7	1.3
6	1.7	2.9				---	14	147	23	3.1	3.6	1.8
7	1.6	3.0				---	13	163	22	3.4	4.7	2.1
8	1.6	3.3				---	13	178	22	3.7	3.6	1.9
9	1.6	3.5				---	15	180	26	3.2	4.5	2.3
10	1.7	3.4				---	19	167	23	3.1	4.2	4.4
11	1.7	3.1				---	25	155	24	2.7	3.3	4.6
12	1.7	3.0				---	20	131	19	2.3	2.8	2.8
13	1.8	2.8				---	15	113	16	2.3	2.9	2.2
14	1.8	---				---	14	106	14	2.6	5.1	2.1
15	1.9	---				17	17	132	12	2.5	4.5	2.1
16	1.9	---				17	23	134	11	2.1	3.3	1.7
17	1.9	---				8.5	26	132	10	1.9	2.7	1.5
18	2.6	---				8.8	28	131	9.2	1.6	2.4	1.4
19	2.5	---				8.8	36	135	8.6	1.8	2.2	1.3
20	2.3	---				9.0	41	132	8.3	1.9	1.9	1.3
21	3.0	---				12	39	126	7.9	2.1	1.8	1.2
22	3.4	---				13	42	120	7.5	3.3	1.9	1.1
23	3.1	---				9.3	57	115	6.7	4.7	2.0	1.3
24	2.9	---				8.5	55	102	6.2	3.1	2.4	1.2
25	2.8	---				8.7	50	87	5.8	3.1	3.5	1.3
26	2.6	---				8.6	49	73	5.4	2.3	2.4	1.6
27	2.5	---				8.4	58	64	4.7	1.9	2.2	1.7
28	2.4	---				7.6	75	58	4.3	1.9	1.9	1.8
29	2.5	---				7.4	91	51	4.1	1.9	1.7	1.8
30	2.7	---				7.2	83	45	3.9	1.7	1.6	1.5
31	2.7	---				7.0	---	42	---	2.0	1.5	---
TOTAL	67.4	---	---	---	---	---	958.8	3440	458.6	84.1	91.4	54.1
MEAN	2.17	---	---	---	---	---	32.0	111	15.3	2.71	2.95	1.80
MAX	3.4	---	---	---	---	---	91	180	37	4.7	5.4	4.6
MIN	1.6	---	---	---	---	---	6.8	42	3.9	1.6	1.5	1.1
AC-FT	134	---	---	---	---	---	1900	6820	910	167	181	107

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 mi² (27.2 km²).

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 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--18 years (water years 1932, 1959-75), 2.51 ft³/s (0.071 m³/s), 1,820 acre-ft/yr (2.24 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (1930-55 and SINCE 1957).--Maximum discharge, 128 ft³/s (3.62 m³/s) Aug. 5, 1969, gage height, 2.86 ft (0.871 m), from rating curve extended above 32 ft³/s (0.91 m³/s); maximum gage height recorded, 3.38 ft (1.030 m) Apr. 2, 1937 (ice jam), site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 15 ft³/s (0.42 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
May 8	2130	26	0.736	1.50	0.457	May 15	2000	*29	0.821	1.56	0.475

Minimum discharge determined, 0.10 ft³/s (0.003 m³/s) Sept. 21, 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.4				---	2.8	8.1	13	2.7	.66	.14
2	1.7	2.6				---	2.5	8.0	12	2.7	.99	.16
3	1.7	1.9				---	2.4	8.0	11	2.5	1.4	.15
4	1.8	2.2				---	2.9	11	10	2.5	1.2	.15
5	1.8	2.5				---	3.3	14	6.5	2.2	.64	.16
6	1.7	2.5				---	4.1	17	4.8	2.2	.61	.18
7	2.0	2.5				2.5	4.2	18	6.3	2.3	.74	.20
8	2.2	2.5				2.4	4.0	25	7.5	2.2	.86	.17
9	2.2	2.6				2.2	4.8	25	6.8	2.1	1.1	.38
10	2.2	2.6				2.4	6.0	24	6.9	1.6	.77	.64
11	2.2	2.2				2.4	5.5	23	5.6	.54	.62	.47
12	2.2	1.7				2.2	4.0	19	3.9	.57	1.4	.31
13	2.2	---				2.3	3.2	16	2.4	.55	1.5	.24
14	2.2	---				2.8	2.6	17	2.2	.53	.70	.22
15	2.2	---				3.1	3.5	22	1.9	.47	.66	.21
16	2.2	---				3.1	4.5	23	1.9	.44	.47	.19
17	2.2	---				2.8	5.5	20	1.8	.45	.38	.16
18	2.6	---				2.6	6.5	20	1.7	.48	.35	.14
19	2.4	---				3.0	7.1	23	1.6	.52	.31	.15
20	2.3	---				3.1	7.6	25	1.5	.56	.26	.13
21	2.6	---				3.6	8.2	25	1.5	.55	.23	.11
22	2.7	---				3.5	9.0	26	2.2	.42	.24	.11
23	2.6	---				3.1	9.7	27	3.5	.45	.26	.12
24	2.6	---				3.1	9.2	27	3.3	.53	.28	.12
25	2.5	---				2.9	7.9	24	3.3	.47	.35	.12
26	2.4	---				2.8	6.2	21	3.1	.41	.30	.28
27	2.3	---				2.9	9.3	19	3.0	.36	.28	1.4
28	2.4	---				2.8	6.9	17	2.7	.38	.25	1.4
29	2.4	---				2.8	7.1	16	2.6	.37	.22	1.3
30	2.5	---				2.6	7.8	15	2.6	.37	.19	1.3
31	2.5	---				2.6	---	14	---	1.3	.16	---
TOTAL	69.3	---	---	---	---	---	168.3	597.1	137.1	33.72	18.38	10.81
MEAN	2.24	---	---	---	---	---	5.61	19.3	4.57	1.09	.59	.36
MAX	2.7	---	---	---	---	---	9.7	27	13	2.7	1.5	1.4
MIN	1.7	---	---	---	---	---	2.4	8.0	1.5	.36	.16	.11
AC-FT	137	---	---	---	---	---	334	1180	272	67	36	21

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 mi² (433 km²).

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

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 hm³) between gage heights 35.0 ft (10.67 m), sill of outlet gate, and 137.0 ft (41.76 m), crest of ungated spillway. Dead storage negligible. Records given herein represent usable contents. Water released is used for irrigation. Lake is recreational area. Diversions for irrigation of about 2,500 acres (10 km²) 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 hm³) May 31, 1942, gage height, 136.9 ft (41.73 m); minimum observed, 635 acre-ft (783,000 m³) Dec. 14, 1954, gage height, 61.33 ft (18.693 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 59,330 acre-ft (62.1 hm³) June 9, gage height, 123.55 ft (37.658 m); minimum observed, 33,580 acre-ft (41.4 km³) Nov. 12, 13, gage height, 113.40 ft (34.564 m).

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35180	---	---	34160	---	---	---	---	---	---	---	42930
2	---	---	---	---	---	---	---	---	50220	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	46040	---
5	---	33660	---	---	35180	---	---	41820	---	---	---	---
6	---	---	---	---	---	36450	---	---	---	---	---	---
7	---	---	---	---	---	---	37510	---	---	48650	---	---
8	35040	---	---	---	---	---	---	---	---	---	---	42250
9	---	---	---	34420	---	---	---	---	50330	---	---	---
10	---	---	---	---	---	36600	---	---	---	---	---	---
11	---	---	33800	---	---	---	---	---	---	---	45510	---
12	---	33580	---	---	---	---	---	44560	---	---	---	---
13	---	33580	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	37670	45110	---	47560	---	---
15	34450	---	---	---	35330	---	---	---	---	---	---	41970
16	34290	---	---	---	---	---	---	46400	50220	---	---	---
17	---	---	---	---	---	36900	---	---	---	---	---	---
18	---	---	---	---	35440	---	---	---	---	---	44820	---
19	---	---	---	---	---	---	---	47110	---	---	44500	---
20	---	---	---	---	---	---	37900	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	34230	---	---	34890	---	---	---	---	50120	46760	---	41580
23	---	---	---	---	---	---	---	---	---	46660	---	---
24	---	---	---	---	---	37050	---	---	49900	---	---	---
25	---	---	---	---	---	---	---	---	---	---	43780	---
26	---	---	---	---	---	---	---	49470	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	46310	---	41010
29	34090	33700	---	---	36070	---	---	---	---	---	---	---
30	---	33700	---	34960	---	---	39870	---	49380	---	---	40900
31	34000	---	34150	35000	---	37360	---	50000	---	46200	43000	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---
(±)	-1200	-300	+450	+850	+1070	+1290	+2510	+10130	-620	-3180	-3200	-2100

CAL YR 1979..... ‡ +26420

WTR YR 1980..... ‡ +5700

‡ Change in contents, in acre-feet.

NOTE.--Monthend contents interpolated or estimated on basis of inflow to and releases from Lake except Feb. 29, Mar. 31, Apr. 30 and June 30.

ARKANSAS RIVER BASIN

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 mi² (433 km²).

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 km²) above station.

AVERAGE DISCHARGE.--30 years, 13.6 ft³/s (0.385 m³/s), 9,850 acre-ft/yr (12.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 205 ft³/s (5.81 m³/s) June 14, 1955, gage height, 2.79 ft (0.850 m); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 166 ft³/s (4.70 m³/s) July 7, gage height, 2.62 ft (0.799 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	25	.00	.00	.11	.11	.33	.33	26	58	29	33
2	20	25	.00	.00	.11	.15	2.9	.33	27	58	29	37
3	20	27	.00	.00	.11	.20	.18	.43	27	49	35	42
4	20	29	.00	.00	.11	.30	.18	.56	27	44	37	42
5	19	29	.00	.00	.11	.28	.18	.33	27	44	28	42
6	18	29	.00	.00	.11	.25	.15	.33	27	58	28	42
7	26	28	.00	.00	.11	.18	.14	.33	8.0	72	28	34
8	32	25	.00	.00	.11	.18	.25	.33	19	69	28	30
9	34	25	.00	.00	.11	.11	23	.30	27	69	28	31
10	34	21	.00	.00	.11	.11	30	.26	25	69	31	11
11	34	.11	.00	.00	.11	.05	37	.33	19	69	33	.42
12	34	.05	.00	.00	.11	.05	35	.26	19	69	36	.42
13	34	.05	.00	.00	.11	.05	29	.29	19	58	43	.42
14	32	.05	.00	.00	.11	.05	29	.29	19	49	52	17
15	29	.05	.00	.00	.11	.05	29	.25	13	47	52	14
16	29	.05	.00	.00	.11	.11	29	.25	13	43	51	14
17	19	.05	.00	.00	.11	.11	29	.24	13	42	53	18
18	14	.02	.00	.00	.11	.11	29	.25	13	33	55	18
19	13	.00	.00	.00	.11	.11	29	.25	13	33	55	16
20	13	.00	.00	.00	.11	.11	23	.25	13	41	60	18
21	13	.00	.00	.00	.11	.11	16	.30	4.6	44	62	23
22	13	.00	.00	5.0	.11	.18	16	.30	11	44	62	26
23	13	.00	.00	.20	.11	.18	16	.25	16	40	62	27
24	12	.00	.00	.15	.11	.25	12	.25	27	30	77	28
25	8.2	.02	.00	.14	.11	.25	.33	18	35	30	84	29
26	8.2	.02	.00	.13	.11	.25	.33	25	35	29	84	29
27	8.2	.02	.00	.12	.11	.33	.33	25	35	29	80	29
28	11	.01	.00	.11	.11	.33	.33	25	35	29	59	29
29	12	.01	.00	.11	.13	.33	.33	25	51	29	59	28
30	12	.00	.00	.11	---	.33	.33	25	57	29	42	24
31	15	---	.00	.11	---	.33	---	25	---	29	33	---
TOTAL	620.6	263.51	.00	6.18	3.21	5.54	417.29	175.29	700.6	1436	1495	734.26
MEAN	20.0	8.78	.000	.20	.11	.18	13.9	5.65	23.4	46.3	48.2	24.5
MAX	34	29	.00	5.0	.13	.33	37	25	57	72	84	.42
MIN	8.2	.00	.00	.00	.11	.05	.14	.24	4.6	29	28	.42
AC-FT	1230	523	.00	12	6.4	11	828	348	1390	2850	2970	1460
CAL YR 1979	TOTAL	4047.42	MEAN	11.1	MAX	135	MIN	.00	AC-FT	8030		
WTR YR 1980	TOTAL	5857.48	MEAN	16.0	MAX	84	MIN	.00	AC-FT	11620		

07206000 CIMARRON RIVER BELOW EAGLE NEST DAM, NM -- Continued

WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (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												
16...	1445	29	290	7.6	14.0	120	2	37	7.1	9.4	.4	2.5
NOV												
13...	1555	.05	341	8.1	1.0	140	3	43	8.7	12	.4	3.1
MAR												
06...	1230	.35	468	6.9	3.0	170	0	53	10	12	.4	3.7
31...	1500	.30	340	6.9	2.5	150	16	44	8.8	11	.4	3.3
MAY												
27...	1600	26	288	7.2	10.5	120	0	36	7.4	8.9	.4	2.1
JUN												
24...	1530	35	284	7.5	14.0	120	2	37	7.3	8.8	.3	2.3
JUL												
21...	1550	46	293	7.6	16.0	130	11	40	7.6	8.9	.3	2.5
AUG												
19...	1540	52	290	7.5	--	130	6	38	7.6	9.1	.4	2.4
SEP												
19...	1200	14	289	7.8	22.0	130	0	38	7.6	8.9	.3	2.5

DATE	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT											
16...	120	17	4.2	.3	16	--	167	.36	--	--	--
NOV											
13...	140	17	5.1	.4	17	--	197	1.4	--	--	--
MAR											
06...	210	5.7	4.7	.3	19	--	240	1.3	--	--	--
31...	130	7.8	4.0	.4	16	--	187	3.0	--	--	--
MAY											
27...	120	16	3.8	.3	14	171	163	.46	.060	40	10
JUN											
24...	120	15	4.1	.5	13	--	163	.58	--	--	--
JUL											
21...	120	18	4.4	.5	14	--	170	.40	--	--	--
AUG											
19...	120	12	4.6	.4	14	--	162	.40	--	--	--
SEP											
19...	130	10	4.3	.4	15	196	167	.47	.140	40	<10

ARKANSAS RIVER BASIN

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 mi² (761 km²).

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.--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 km²), part of which is below station. Philmont ditch (formerly known as Cimarroncito ditch) diverts from left bank 1.5 mi (2.3 km) above station, flumes under river 0.9 mi (1.4 km) above and bypasses station for off-channel storage and irrigation below; see tabulation below for monthly diversions. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--30 years, 20.8 ft³/s (0.589 m³/s), 15,070 acre-ft/yr (18.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft³/s (439 m³/s) June 17, 1965, gage height, 12.42 ft (3.786 m), from floodmark, from rating curve extended above 800 ft³/s (23 m³/s) on basis of slope-area measurements at gage heights 4.88 ft (1.487 m) and 12.42 ft (3.786 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 132 ft³/s (3.74 m³/s) May 15, gage height, 2.23 ft (0.680 m); maximum gage height, 2.52 ft (0.768 m) Jan. 9, backwater from ice; minimum discharge, 1.3 ft³/s (0.037 m³/s) Feb. 25, Mar. 10, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	23	5.5	5.5	5.5	4.8	7.4	53	76	57	25	29
2	21	26	6.0	5.5	5.5	4.8	6.6	54	76	57	24	33
3	21	27	6.0	5.5	5.5	4.7	7.4	54	74	53	27	42
4	21	30	6.0	6.0	6.0	5.1	6.8	58	72	44	33	42
5	21	31	6.7	6.0	5.5	4.9	6.7	70	72	43	26	43
6	20	31	6.5	6.5	6.0	4.8	6.8	84	73	48	24	43
7	20	32	7.0	6.0	5.2	5.0	6.9	87	67	64	25	41
8	28	30	7.6	5.5	5.0	4.8	6.6	100	60	62	25	31
9	30	30	8.0	6.0	5.0	5.0	7.6	98	74	60	24	36
10	32	29	9.0	6.7	5.0	4.6	21	95	79	60	24	34
11	31	20	5.3	6.0	5.0	5.2	31	93	78	63	26	13
12	31	12	5.0	6.0	5.0	5.0	34	84	77	63	27	7.2
13	32	11	5.5	6.2	5.0	5.0	30	73	69	60	32	6.5
14	32	9.6	6.0	5.8	5.5	4.7	30	66	62	49	39	7.7
15	28	9.5	6.0	5.6	5.7	4.8	31	88	57	46	42	16
16	29	9.5	5.5	5.3	5.1	4.9	32	87	51	41	41	16
17	27	9.5	5.5	5.0	5.0	5.0	33	78	47	40	43	17
18	20	8.1	6.0	5.1	4.9	5.1	35	77	44	34	45	18
19	19	8.0	6.5	5.4	5.5	5.0	37	76	41	32	45	18
20	18	7.0	6.5	5.1	5.2	5.1	39	78	35	34	46	18
21	18	6.0	6.7	5.0	5.0	5.0	33	83	31	40	50	18
22	18	5.0	6.4	6.0	5.0	5.1	35	88	26	41	51	23
23	17	6.0	6.5	7.0	5.1	5.9	38	97	32	41	51	25
24	17	7.0	6.0	6.0	4.9	5.6	47	101	36	32	56	25
25	16	9.0	6.0	6.0	5.3	5.8	33	103	47	30	66	26
26	14	10	6.1	5.5	5.7	5.6	30	104	47	28	66	27
27	14	7.2	5.9	5.0	4.9	6.2	29	93	46	28	68	27
28	14	6.0	5.5	5.0	4.6	6.3	34	87	46	27	56	26
29	16	5.0	5.0	5.5	4.7	6.1	46	83	53	25	51	26
30	17	5.5	5.0	6.0	---	5.9	54	82	59	25	44	24
31	17	---	5.0	5.5	---	5.9	---	78	---	25	30	---
TOTAL	679	459.9	190.2	177.2	151.3	161.7	794.8	2552	1707	1352	1232	758.4
MEAN	21.9	15.3	6.14	5.72	5.22	5.22	26.5	82.3	56.9	43.6	39.7	25.3
MAX	32	32	9.0	7.0	6.0	6.3	54	104	79	64	68	43
MIN	14	5.0	5.0	5.0	4.6	4.6	6.6	53	26	25	24	6.5
AC-FT	1350	912	377	351	300	321	1580	5060	3390	2680	2440	1500
(†)	0	0	0	0	0	0	0	0	0	302	302	0

CAL YR 1979 TOTAL 11532.8 MEAN 31.6 MAX 206 MIN 3.0 AC-FT 22880 † 330
WTR YR 1980 TOTAL 10215.5 MEAN 27.9 MAX 104 MIN 4.6 AC-FT 20260 † 604

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

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 mi² (443 km²).

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

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.--Records good except those for October and those for winter period, which are poor. Diversions for irrigation of about 250 acres (1.0 km²) above station. Diversions 1,000 ft (300 m) below station for irrigation of about 300 acres (1.2 km²). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years (water years 1916-25, 1928, 1951-80), 11.3 ft³/s (0.320 m³/s), 8,190 acre-ft/yr (10.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,630 ft³/s (159 m³/s) June 17, 1965, gage height, 11.13 ft (3.392 m), from rating curve extended above 230 ft³/s (6.5 m³/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 ft³/s (150 m³/s) by State Engineer.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 207 ft³/s (5.86 m³/s) at 0645 hours May 8, gage height, 2.81 ft (0.856 m), no other peak above base of 200 ft³/s (5.7 m³/s); minimum, 0.03 ft³/s (0.001 m³/s) Sept. 21, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	4.1	2.7	3.0	2.8	2.5	3.4	73	52	6.2	1.5	.14
2	3.5	3.9	3.0	3.5	3.0	2.8	3.9	72	47	6.3	2.3	.14
3	3.5	3.9	4.0	3.5	3.0	3.0	3.8	85	44	5.7	7.6	.09
4	3.6	4.3	5.5	3.5	3.5	2.9	4.1	89	41	5.1	3.9	.08
5	3.7	4.3	4.5	3.5	3.3	2.9	4.3	92	39	4.5	2.2	.10
6	3.6	4.5	3.9	3.5	3.0	2.8	4.8	156	38	4.1	1.7	.17
7	4.0	4.5	3.6	3.0	3.0	2.9	5.3	163	36	4.7	1.4	.25
8	4.0	4.9	3.9	2.5	3.0	2.7	5.0	188	37	4.7	2.4	.16
9	3.5	5.8	3.7	2.8	2.5	2.5	5.6	173	39	3.9	5.9	.40
10	3.8	5.8	3.6	3.0	2.8	2.5	6.3	154	43	3.6	6.2	1.5
11	4.0	5.5	3.0	2.8	2.8	2.8	7.7	137	41	3.5	3.7	.95
12	3.5	5.3	3.2	2.8	2.8	2.8	7.2	117	35	3.0	2.6	.36
13	3.0	4.9	3.6	2.9	3.0	2.2	7.0	98	32	2.7	2.0	.23
14	3.0	4.3	3.7	2.9	3.0	2.5	7.2	84	29	2.7	2.0	.17
15	3.2	4.1	6.0	2.9	3.0	2.6	7.8	97	26	2.2	2.2	.19
16	2.8	4.1	5.1	2.7	2.7	2.8	9.0	101	23	1.9	1.7	.13
17	3.0	4.3	4.7	2.6	2.8	2.8	11	103	22	1.6	1.2	.10
18	3.2	4.1	5.1	2.5	2.8	2.8	14	104	19	1.4	.93	.08
19	3.2	4.1	5.1	3.0	3.1	3.0	17	102	17	1.5	.66	.06
20	3.2	4.3	7.1	4.0	3.0	2.7	23	100	16	1.4	.43	.05
21	3.2	3.7	7.0	3.5	2.9	2.6	27	107	15	1.6	.32	.04
22	3.2	3.7	5.5	3.2	2.8	2.8	30	117	14	1.7	.27	.05
23	3.6	4.0	5.5	3.5	2.8	3.0	36	125	12	2.0	.33	.07
24	3.6	4.5	5.0	4.3	2.8	3.2	40	127	11	2.8	.41	.06
25	3.0	5.1	4.5	5.0	2.8	3.6	34	117	10	1.8	.32	.09
26	3.0	3.7	4.5	4.5	2.8	3.2	31	99	9.5	1.7	.31	.14
27	2.8	3.2	4.5	3.5	2.9	3.9	29	84	8.4	1.3	.92	.12
28	3.0	3.0	4.0	2.5	2.7	3.8	37	73	7.7	1.0	.65	.08
29	3.4	2.9	3.0	2.5	2.9	3.6	63	68	7.0	1.2	.31	.05
30	4.5	2.8	3.0	2.8	---	3.4	81	63	6.7	1.3	.23	.05
31	3.9	---	3.0	2.8	---	3.7	---	57	---	1.2	.18	---
TOTAL	106.3	127.6	134.5	99.0	84.3	91.3	565.4	3325	777.3	88.3	56.77	6.10
MEAN	3.43	4.25	4.34	3.19	2.91	2.95	18.8	107	25.9	2.85	1.83	.20
MAX	4.5	5.8	7.1	5.0	3.5	3.9	81	188	52	6.3	7.6	1.5
MIN	2.8	2.8	2.7	2.5	2.5	2.2	3.4	57	6.7	1.0	.18	.04
AC-FT	211	253	267	196	167	181	1120	6600	1540	175	113	12
CAL YR 1979	TOTAL	10644.00	MEAN 29.2	MAX 453	MIN 1.5	AC-FT 21110						
WTR YR 1980	TOTAL	5461.87	MEAN 14.9	MAX 188	MIN .04	AC-FT 10830						

ARKANSAS RIVER BASIN

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 mi² (168 km²).

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

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.--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.--61 years (water years 1912, 1914, 1916-20, 1924, 1928-80), 13.9 ft³/s (0.394 m³/s), 10,070 acre-ft/yr (12.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (1909-12, and SINCE 1913).--Maximum discharge, 9,000 ft³/s (250 m³/s) June 17, 1965, gage height, 11.5 ft (3.51 m), from floodmarks, from rating curve extended above 70 ft³/s (2.0 m³/s) on basis of field estimate of peak flow; minimum, 0.03 ft³/s (0.001 m³/s) Dec. 3, 1950, but may have been less during periods of ice effect.

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.--Peak discharge above base of 100 ft³/s (2.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 8	0230	*327 9.26	4.02 1.225	May 23	0745	183 5.18	3.66 1.116

Minimum discharge, 0.60 ft³/s (0.017 m³/s) Feb. 25, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	5.1	3.4	3.4	4.7	4.7	5.0	65	86	14	8.7	3.6
2	4.6	4.9	3.9	3.7	4.7	5.1	5.8	62	81	15	8.4	3.6
3	4.5	4.6	4.1	3.9	4.7	4.6	6.0	73	77	13	11	3.4
4	4.5	5.4	4.3	3.9	4.1	4.5	6.0	97	73	13	8.8	3.3
5	4.4	5.0	4.1	3.7	4.2	4.4	6.6	131	71	13	7.5	3.4
6	4.3	4.7	4.0	3.7	4.0	4.4	7.4	164	69	12	9.3	3.9
7	4.2	5.4	4.0	3.7	4.0	4.5	8.4	193	66	12	9.0	4.1
8	4.1	5.5	4.0	3.7	3.3	4.0	8.4	248	65	12	7.6	3.9
9	4.1	5.6	3.9	3.7	3.0	4.2	9.4	203	65	11	8.8	6.6
10	4.2	5.4	4.0	3.7	3.5	3.9	11	176	63	11	9.7	11
11	4.1	4.3	4.0	3.7	3.8	4.7	13	158	67	10	7.7	7.6
12	4.0	3.5	3.9	3.9	4.1	4.1	9.6	129	54	9.8	6.9	5.7
13	4.0	3.8	3.9	3.9	4.0	4.0	11	109	47	9.8	6.9	5.0
14	4.1	3.7	4.1	4.1	4.0	4.4	11	101	42	10	7.5	4.9
15	4.1	3.5	4.2	4.5	4.1	5.1	12	123	37	9.6	7.1	4.8
16	4.1	3.6	3.9	4.5	3.8	5.4	14	120	34	8.9	5.9	4.3
17	4.1	4.3	4.1	4.1	3.9	5.1	17	123	31	8.4	5.5	4.1
18	4.4	5.2	4.1	4.2	4.0	4.8	21	118	29	8.0	5.5	3.9
19	4.6	5.1	3.5	4.3	4.6	5.4	26	137	26	9.3	5.3	3.7
20	4.4	4.4	3.6	4.3	4.5	5.3	32	141	25	8.3	5.0	3.4
21	4.6	2.3	3.9	4.3	4.2	5.6	34	143	24	8.1	4.7	3.3
22	5.2	3.3	3.7	4.3	4.3	6.2	41	152	22	8.7	4.5	3.3
23	5.1	3.5	3.9	5.0	3.8	6.0	47	173	21	9.2	4.5	3.5
24	5.2	4.0	3.9	5.2	4.1	5.9	46	160	20	9.2	4.4	3.4
25	5.0	4.7	3.9	4.3	3.3	5.8	35	139	19	8.3	4.6	3.5
26	4.8	5.0	3.9	4.1	4.4	4.9	36	122	18	7.4	4.7	3.8
27	4.6	4.4	3.8	3.9	4.2	5.9	38	111	17	6.9	4.8	3.8
28	4.7	3.4	3.5	3.9	4.9	5.1	46	104	16	6.9	4.5	5.0
29	4.7	3.0	3.3	4.1	5.2	5.4	55	98	15	6.7	4.1	3.9
30	5.1	2.5	3.0	4.7	---	5.3	70	93	15	6.6	4.0	3.5
31	5.2	---	3.2	4.7	---	5.0	---	89	---	9.6	3.8	---
TOTAL	139.7	129.1	119.0	127.1	119.4	153.7	688.6	4055	1295	305.7	200.7	131.2
MEAN	4.51	4.30	3.84	4.10	4.12	4.96	23.0	131	43.2	9.86	6.47	4.37
MAX	5.2	5.6	4.3	5.2	5.2	6.2	70	248	86	15	11	11
MIN	4.0	2.3	3.0	3.4	3.0	3.9	5.0	62	15	6.6	3.8	3.3
AC-FT	277	256	236	252	237	305	1370	8040	2570	606	398	260

CAL YR 1979 TOTAL 7716.3 MEAN 21.1 MAX 186 MIN 2.3 AC-FT 15310
WTR YR 1980 TOTAL 7464.2 MEAN 20.4 MAX 248 MIN 2.3 AC-FT 14810

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 mi² (2,673 km²).

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

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 except those for winter period, which are poor. Flow partly regulated by Eagle Nest Lake (station 07205500). Diversions for irrigation of about 23,000 acres (93 km²) above station and a few hundred acres between station and mouth. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--56 years (water years 1921, 1925, 1927-80), 17.2 ft³/s (0.487 m³/s), 12,460 acre-ft/yr (15.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1930).--Maximum discharge, 29,500 ft³/s (835 m³/s) June 18, 1965, gage height, 19.96 ft (6.084 m), from floodmarks, from rating curve extended above 1,800 ft³/s (51 m³/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 exceeded 10,000 ft³/s (280 m³/s), but probably were less than the 1965 flood.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 280 ft³/s (7.9 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 8	1045	522 14.8	4.98 1.518	Sept. 15	0045	*1140 32.3	5.79 1.765
May 16	0900	515 14.6	4.95 1.509				

Minimum, 0.06 ft³/s (0.002 m³/s) Jan. 11, 12, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	2.6	3.6	4.6	4.5	4.1	2.6	8.3	94	6.5	1.1	2.0
2	1.3	2.7	3.8	4.5	4.9	4.4	5.2	24	139	6.4	1.2	1.8
3	1.3	2.7	4.0	4.2	5.0	4.4	5.0	179	102	7.7	1.4	1.4
4	1.4	2.7	4.0	4.5	5.1	4.2	4.3	252	104	6.2	1.9	1.0
5	.83	2.7	4.2	4.6	5.1	4.0	3.8	240	97	5.3	2.2	.92
6	1.3	2.8	4.2	4.3	5.0	4.0	3.4	374	75	5.8	2.3	1.0
7	1.1	3.3	4.2	4.2	3.8	3.9	2.9	392	74	4.5	4.4	1.3
8	1.1	3.9	4.1	4.0	3.5	3.6	2.5	471	46	3.5	2.7	1.0
9	1.1	4.0	4.1	4.4	3.5	3.6	2.6	437	48	3.2	4.9	2.3
10	1.3	4.3	4.2	5.2	4.0	3.6	2.8	403	60	3.6	5.5	7.4
11	1.3	5.1	4.1	3.6	4.4	3.8	3.1	383	111	2.3	4.4	7.1
12	1.5	5.9	3.9	4.0	4.6	3.9	3.6	362	118	2.1	3.8	4.2
13	2.3	5.5	3.9	4.5	4.6	3.4	3.6	322	101	3.6	3.3	2.4
14	1.7	5.0	3.7	5.0	4.6	3.4	3.6	294	81	2.6	7.8	9.0
15	1.5	4.2	3.9	5.0	4.4	3.3	3.7	354	24	2.3	12	184
16	1.5	3.9	3.8	4.5	4.3	3.4	3.4	426	15	2.4	7.5	14
17	1.4	4.0	3.7	4.5	4.8	3.9	3.1	357	13	2.2	4.7	8.0
18	1.7	4.1	3.8	4.5	4.9	3.5	2.9	357	12	1.7	3.2	6.0
19	1.8	4.1	3.7	4.5	4.6	3.3	2.9	363	10	2.4	4.0	5.2
20	1.5	4.0	3.8	4.5	4.2	3.2	2.7	370	9.5	3.3	3.5	4.2
21	3.0	4.0	4.0	4.2	4.2	3.1	2.6	369	8.4	3.5	1.9	3.5
22	3.3	3.5	4.3	4.2	4.2	3.0	2.6	375	7.6	3.7	2.2	3.2
23	2.8	3.8	3.8	4.5	3.7	5.0	2.6	404	7.4	4.2	3.1	3.0
24	2.4	4.1	3.9	5.2	3.6	5.0	11	405	7.1	4.3	4.0	2.9
25	2.3	4.1	4.2	5.6	3.7	4.4	20	397	6.1	4.0	2.6	3.1
26	2.0	4.0	4.5	4.8	4.0	3.9	15	369	6.9	4.3	4.1	3.3
27	1.9	3.7	5.3	4.5	4.0	4.1	14	331	7.0	4.3	5.7	3.9
28	1.9	3.5	4.9	4.5	3.9	4.7	10	286	7.9	3.7	6.7	4.7
29	2.1	3.3	4.5	4.5	4.0	4.3	8.7	253	7.7	3.5	5.1	5.8
30	3.2	3.5	4.0	4.5	---	3.9	7.9	162	7.8	1.9	4.3	3.8
31	2.8	---	4.3	4.4	---	3.5	---	146	---	1.5	3.2	---
TOTAL	56.03	115.0	126.4	140.0	125.1	119.8	162.1	9865.3	1407.4	116.5	124.7	301.42
MEAN	1.81	3.83	4.08	4.52	4.31	3.86	5.40	318	46.9	3.76	4.02	10.0
MAX	3.3	5.9	5.3	5.6	5.1	5.0	20	471	139	7.7	12	184
MIN	.83	2.6	3.6	3.6	3.5	3.0	2.5	8.3	6.1	1.5	1.1	.92
AC-FT	111	228	251	278	248	238	322	19570	2790	231	247	598
CAL YR 1979	TOTAL	16757.83	MEAN	45.9	MAX	961	MIN	.62	AC-FT	33240		
WTR YR 1980	TOTAL	12659.75	MEAN	34.6	MAX	471	MIN	.83	AC-FT	25110		

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 mi² (7,380 km²).

PERIOD OF RECORD.--January 1940 to September 1958, annual maximum, water years 1959-63, June 1964 to current year.

Water-year estimate for 1940, published in WSP 1311.

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 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--35 years (water years 1940-58, 1965-80), 81.4 ft³/s (2.305 m³/s), 58,970 acre-ft/yr (72.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 162,000 ft³/s (4,590 m³/s) June 18, 1965, gage height, 47.4 ft (14.448 m), from floodmarks, from rating curve extended above 7,000 ft³/s (200 m³/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 ft³/s (2,580 m³/s) in WSP 842,847.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,750 ft³/s (49.6 m³/s) May 16, gage height, 4.32 ft (1.317 m), no peak above base of 3,000 ft³/s (85 m³/s); minimum, 0.76 ft³/s (0.022 m³/s) Dec. 12, result of freezeup, may have been less during periods of ice effect.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	5.5	7.0	7.0	11	7.1	6.7	17	116	7.6	3.0	2.5
2	3.6	6.0	8.0	7.0	11	6.9	11	22	146	4.7	2.0	2.5
3	3.8	6.0	9.0	7.0	12	7.7	14	132	115	7.0	55	2.5
4	3.8	6.1	10	7.5	11	7.4	12	256	104	8.2	35	2.5
5	3.8	6.0	11	8.0	12	6.8	10	250	104	4.9	7.9	2.5
6	3.7	5.5	11	10	12	7.0	8.6	379	82	4.0	5.0	2.5
7	3.6	5.4	10	8.0	11	6.4	6.9	504	76	4.0	3.9	2.5
8	4.0	5.2	10	10	10	5.6	5.5	707	59	3.8	4.5	2.5
9	3.8	5.8	10	13	10	5.9	5.7	724	125	4.0	3.4	3.0
10	3.8	6.3	10	14	10	5.8	6.2	564	336	4.0	5.1	15
11	3.9	7.1	9.0	12	10	5.9	5.7	468	215	3.8	5.3	20
12	3.8	7.0	8.0	11	10	6.1	7.1	420	154	3.8	4.4	15
13	3.8	7.0	8.0	16	11	5.2	7.3	321	102	4.0	4.2	10
14	4.3	7.0	8.0	16	12	5.3	7.4	300	85	3.8	4.0	8.0
15	4.2	7.0	8.5	17	12	5.5	7.3	448	39	3.6	4.9	50
16	4.0	6.8	9.0	16	11	5.1	7.1	1150	21	3.4	9.1	30
17	3.8	6.8	9.0	16	11	6.2	6.4	786	18	2.8	4.6	20
18	3.9	6.7	9.0	13	10	6.7	6.0	605	18	3.3	3.2	15
19	3.9	6.4	8.0	14	9.0	6.1	6.0	528	14	2.3	3.0	10
20	4.1	7.7	9.0	13	8.0	5.8	5.6	557	13	3.2	3.0	9.0
21	4.7	7.0	9.0	14	7.0	5.3	5.2	555	12	3.6	3.0	8.0
22	8.7	6.0	8.0	10	6.0	4.9	4.8	567	11	3.7	3.0	7.0
23	6.5	7.0	7.0	9.1	5.0	7.3	5.3	617	9.7	3.8	3.0	6.0
24	5.7	8.0	7.5	12	5.0	11	17	655	9.7	3.9	3.0	5.0
25	5.2	9.0	8.0	12	5.5	10	41	604	8.6	3.9	3.0	4.5
26	4.6	10	9.0	8.6	6.0	9.2	36	532	7.9	3.6	3.0	6.0
27	4.2	9.0	9.0	12	6.5	9.2	33	415	7.9	3.7	3.0	5.5
28	3.7	7.0	8.0	10	7.2	12	27	346	7.9	15	3.0	5.0
29	3.9	6.0	7.0	8.6	7.3	12	20	298	6.4	13	2.8	4.5
30	6.3	6.5	6.5	11	---	10	18	206	7.0	4.8	2.5	4.0
31	5.8	---	7.0	9.8	---	9.8	---	164	---	3.9	2.5	---
TOTAL	136.7	202.8	267.5	352.6	269.5	225.2	359.8	14097	2030.1	149.1	246.4	280.5
MEAN	4.41	6.76	8.63	11.4	9.29	7.26	12.0	455	67.7	4.81	7.95	9.35
MAX	8.7	10	11	17	12	12	41	1150	336	15	55	50
MIN	3.6	5.2	6.5	7.0	5.0	4.9	4.8	17	6.4	2.3	2.0	2.5
AC-FT	271	402	531	699	535	447	714	27960	4030	296	489	556

CAL YR 1979 TOTAL 32480.1 MEAN 89.0 MAX 3440 MIN 1.8 AC-FT 64420

WTR YR 1980 TOTAL 18617.2 MEAN 50.9 MAX 1150 MIN 2.0 AC-FT 36930

NOTE.--No gage-height record Nov. 21 to Jan. 4, Aug. 19 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 mi² (448 km²).

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

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 poor prior to June and good thereafter. Diversions above station for irrigation of about 7,000 acres (28 km²), part of which is below station. See tabulation below for monthly and yearly diversion of La Cueva Canal, which bypasses gage on left bank. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--53 years (water years 1907-10, 1932-80), 27.4 ft³/s (0.776 m³/s), 19,850 acre-ft/yr (24.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1930).--Maximum discharge, 1,530 ft³/s (43.3 m³/s) Sept. 23, 1941 gage height, 7.58 ft (2.310 m), site and datum then in use, from rating curve extended above 400 ft³/s (11 m³/s); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 29, 1904, may have exceeded 20,000 ft³/s (570 m³/s); another major flood occurred June 11, 1913, but is believed less than that of 1904.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.5 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 7	2030	300 8.50	*4.91 1.497	May 15	1830	*392 11.1	4.86 1.481

Minimum daily discharge, 0.50 ft³/s (0.014 m³/s) Dec. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	1.3	.50	15	11	1.1	13	76	148	16	17	12
2	12	1.3	.70	16	11	1.1	14	81	128	17	17	12
3	11	1.5	.94	15	11	1.1	14	85	116	17	17	13
4	11	1.6	1.4	15	11	1.3	16	91	111	16	17	12
5	7.9	2.0	1.9	15	11	1.3	19	95	113	15	16	12
6	8.8	2.2	2.0	16	11	1.2	20	115	113	15	13	13
7	8.5	2.8	2.2	15	12	1.2	18	180	113	21	13	12
8	6.4	3.2	2.2	16	13	1.3	18	246	116	30	12	12
9	7.3	3.2	2.0	17	12	1.1	14	242	141	24	21	15
10	4.7	2.8	2.2	18	11	1.2	14	240	148	20	15	51
11	5.1	3.6	2.2	19	12	1.3	16	238	144	18	14	29
12	5.1	4.1	2.8	20	12	1.4	20	217	146	16	14	15
13	4.6	4.6	3.0	20	12	1.1	19	194	147	15	13	12
14	4.4	5.3	2.3	20	13	.94	18	185	134	15	14	13
15	6.1	6.1	1.1	20	14	.86	15	291	122	14	15	15
16	8.5	4.9	1.8	20	13	2.2	13	223	104	13	16	15
17	8.2	5.8	2.0	19	11	9.4	11	210	107	13	17	15
18	8.5	8.5	2.2	18	11	9.8	7.8	217	111	15	17	15
19	9.8	13	2.4	18	9.8	8.8	11	217	104	17	16	14
20	9.1	12	3.0	17	11	6.3	18	226	96	17	14	14
21	5.8	9.4	8.5	17	11	1.9	23	242	86	18	12	9.8
22	8.2	9.0	12	18	11	1.8	26	242	79	19	12	10
23	14	8.5	12	18	6.3	2.3	28	250	66	18	12	10
24	17	7.5	13	19	1.9	2.3	34	248	58	16	12	10
25	11	7.5	15	16	1.6	3.9	37	244	52	15	16	10
26	17	8.8	17	16	1.4	4.6	53	210	41	15	19	11
27	19	8.2	19	16	1.5	6.1	65	184	32	15	17	11
28	16	7.5	17	16	1.2	9.4	62	172	25	17	14	12
29	11	2.5	14	16	1.1	14	67	169	19	16	13	12
30	7.2	.90	15	13	---	15	70	163	18	18	12	12
31	6.1	---	15	11	---	16	---	156	---	19	12	---
TOTAL	294.3	159.60	196.34	525	269.8	131.30	773.8	5949	2938	530	459	428.8
MEAN	9.49	5.32	6.33	16.9	9.30	4.24	25.8	192	97.9	17.1	14.8	14.3
MAX	19	13	19	20	14	16	70	291	148	30	21	51
MIN	4.4	.90	.50	11	1.1	.86	7.8	76	18	13	12	9.8
AC-FT	584	317	389	1040	535	260	1530	11800	5830	1050	910	851
(†)	362	496	545	122	209	540	334	57	360	465	331	425

CAL YR 1979 TOTAL 17489.49 MEAN 47.9 MAX 453 MIN .50 AC-FT 34690 † 4320
WTR YR 1980 TOTAL 12654.94 MEAN 34.6 MAX 291 MIN .50 AC-FT 25100 † 4240

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

ARKANSAS RIVER BASIN

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 Golondrin, 1.9 mi (3.1 km) upstream from Coyote Creek, 4.7 mi (7.6 km) downstream from Rito Cebolla, and at mile 75.8 (122.0 km).

DRAINAGE AREA.--267 mi² (692 km²).

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

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 km²) 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 1916-20, 1922, 1924-80), 33.4 ft³/s (0.946 m³/s), 24,200 acre-ft/yr (29.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,000 ft³/s (396 m³/s) Aug. 22, 1952, gage height, 14.4 ft (4.39 m), site and datum then in use, from rating curve extended above 660 ft³/s (19 m³/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 ft³/s (710 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 678 ft³/s (19.2 m³/s) at 1830 hours May 15, gage height, 3.39 ft (1.033 m), no other peak above base of 400 ft³/s (11 m³/s); minimum, 0.22 ft³/s (0.006 m³/s) Mar. 10, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	4.6	2.6	20	15	2.4	14	68	137	11	14	11
2	14	3.3	2.8	20	14	2.4	13	74	116	14	13	9.4
3	12	2.8	3.0	18	13	2.4	10	74	101	15	15	7.9
4	13	2.5	3.0	20	14	2.4	10	87	95	11	12	6.7
5	8.0	2.6	3.3	21	14	2.4	11	82	98	11	12	6.7
6	5.7	3.2	2.9	21	14	2.3	12	110	99	11	10	7.6
7	4.7	2.9	2.8	19	14	2.0	11	160	101	12	9.4	8.8
8	4.8	3.5	2.9	20	12	2.0	10	276	103	20	7.6	8.2
9	6.2	3.3	3.4	19	13	2.3	8.8	224	130	15	16	11
10	5.8	3.3	3.3	18	13	2.0	8.2	214	144	14	21	45
11	5.0	3.6	3.4	17	13	2.2	8.8	207	137	14	15	33
12	4.7	3.4	3.2	18	13	2.3	13	180	139	11	15	17
13	4.7	3.5	3.3	19	14	2.2	12	149	139	10	13	12
14	3.8	3.6	2.9	19	13	2.2	11	137	125	9.5	13	11
15	3.2	4.1	3.0	19	14	2.1	10	362	116	10	15	13
16	5.2	3.8	2.9	18	14	1.9	8.8	324	95	9.1	13	12
17	5.6	3.9	2.9	18	13	6.3	8.2	227	95	6.6	15	11
18	4.0	5.1	3.5	18	12	10	6.1	224	99	6.2	14	12
19	5.5	5.5	3.9	16	11	8.9	6.1	224	93	6.4	14	12
20	6.5	12	4.3	18	8.9	8.3	8.2	224	86	6.3	13	13
21	5.3	9.5	4.8	15	9.6	3.5	16	242	78	34	10	8.8
22	5.0	7.5	9.0	13	9.9	2.3	16	249	73	16	9.3	6.7
23	6.9	8.5	11	13	10	3.0	18	272	61	12	8.4	7.9
24	14	10	14	14	3.8	4.9	26	264	50	11	8.2	8.6
25	9.7	13	17	15	3.0	8.3	32	257	47	10	10	9.0
26	11	13	17	14	2.9	8.2	43	221	37	9.4	13	9.8
27	15	12	25	14	2.7	8.8	59	180	26	10	16	11
28	14	8.0	23	16	2.6	11	49	165	22	11	13	11
29	13	5.0	19	14	2.4	12	53	159	15	11	12	11
30	6.6	2.5	20	18	---	13	61	152	13	14	10	11
31	6.0	---	20	18	---	15	---	139	---	15	10	---
TOTAL	246.9	169.5	243.1	540	308.8	159.0	573.2	5927	2670	376.5	389.9	363.1
MEAN	7.96	5.65	7.84	17.4	10.6	5.13	19.1	191	89.0	12.1	12.6	12.1
MAX	18	13	25	21	15	15	61	362	144	34	21	45
MIN	3.2	2.5	2.6	13	2.4	1.9	6.1	68	13	6.2	7.6	6.7
AC-FT	490	336	482	1070	613	315	1140	11760	5300	747	773	720
CAL YR 1979	TOTAL	19845.8	MEAN	54.4	MAX	652	MIN	2.0	AC-FT	39360		
WTR YR 1980	TOTAL	11967.0	MEAN	32.7	MAX	362	MIN	1.9	AC-FT	23740		

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 Golondrin, and at mile 2.7 (4.3 km).

DRAINAGE AREA.--215 mi² (557 km²).

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

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 June, which are poor. Diversions (including off-channel storage) for irrigation of about 4,000 acres (16 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--52 years, 11.4 ft³/s (0.323 m³/s), 8,260 acre-ft/yr (10.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,050 ft³/s (115 m³/s) Aug. 17, 1961, gage height, 9.60 ft (2.926 m), from rating curve extended above 250 ft³/s (7.1 m³/s) on basis of slope-area measurements at gage heights 5.54 ft (1.689 m), 7.74 ft (2.359 m), and 9.60 ft (2.926 m); maximum gage height, 10.1 ft (3.08 m) Aug. 30, 1936 (site and datum then in use); no flow Aug. 4, 1945, Apr. 10, May 9, 10, 1956, Feb. 20, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 180 ft³/s (5.1 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 7	2145	222 6.29	3.65 1.113	May 15	2045	a*489 13.8	4.54 1.384

a From rating curve extended above 210 ft³/s (5.9 m³/s) as explained above.

Minimum discharge, 0.85 ft³/s (0.024 m³/s) July 11-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	6.0	8.5	7.8	8.0	5.0	3.7	69	41	1.1	1.4	1.0
2	2.0	6.2	9.0	8.0	6.1	5.4	4.0	80	35	1.1	1.3	1.0
3	2.3	6.2	9.3	7.0	6.5	6.5	3.8	69	30	1.1	1.3	1.0
4	3.6	6.4	8.8	7.5	6.9	5.6	4.3	63	25	1.1	1.3	.97
5	5.0	6.3	9.3	7.5	6.4	4.3	7.1	62	25	.99	1.3	.93
6	4.8	6.2	8.3	7.5	6.1	4.0	7.1	59	25	1.0	1.3	1.0
7	3.8	6.6	8.3	7.3	6.7	4.7	4.7	90	25	.99	1.4	1.1
8	4.8	6.5	7.5	7.8	6.8	4.6	4.0	160	25	.99	1.4	1.2
9	4.7	6.8	7.9	7.3	5.9	5.7	3.4	135	30	.98	1.7	1.9
10	3.6	7.3	7.5	8.0	6.1	5.6	3.6	90	30	.96	1.9	9.2
11	3.5	7.3	7.3	7.7	6.6	5.6	3.7	68	30	.88	1.8	6.2
12	5.5	6.6	6.9	8.0	6.8	5.7	4.3	56	20	.85	1.9	3.8
13	5.5	5.5	7.1	8.6	8.0	6.8	4.2	50	10	.85	1.9	2.8
14	3.8	5.5	6.1	8.0	7.5	7.1	4.0	51	4.0	.86	2.0	2.7
15	3.7	6.8	6.3	8.1	7.6	7.3	4.7	190	2.0	.90	2.1	2.6
16	3.4	7.5	7.5	8.5	7.7	6.8	4.2	295	1.7	.95	2.2	2.3
17	3.7	7.8	6.6	7.8	7.2	7.1	3.7	261	1.5	.96	1.9	1.7
18	3.7	8.7	6.8	8.2	7.0	7.1	3.7	198	1.4	.96	1.8	1.6
19	3.5	8.7	6.6	9.3	7.1	7.1	3.6	161	1.4	1.1	1.8	1.5
20	3.3	9.8	7.1	8.7	7.9	6.8	3.4	142	1.3	1.1	2.0	1.4
21	3.6	8.0	8.0	8.5	8.0	6.6	3.1	116	1.3	6.2	1.8	1.4
22	4.3	6.3	7.7	8.3	7.9	5.9	3.0	105	1.2	2.7	1.5	1.4
23	5.7	6.8	6.3	7.8	10	4.7	3.5	104	1.2	1.8	1.3	1.4
24	5.7	8.0	6.6	8.5	9.7	4.2	4.1	97	1.2	1.7	1.2	1.5
25	6.0	9.0	8.8	9.1	8.3	4.0	6.1	78	1.3	1.6	1.3	1.7
26	5.4	9.0	7.6	8.5	7.1	4.0	12	73	1.3	1.5	1.3	9.4
27	4.5	9.0	7.3	8.5	5.4	4.0	23	70	1.3	1.5	1.3	2.8
28	4.9	8.0	6.6	8.6	5.2	3.8	25	64	1.2	1.5	1.3	2.2
29	5.2	8.0	6.8	9.4	5.1	4.0	50	59	1.1	1.5	1.2	1.9
30	5.5	8.5	7.0	10	---	3.8	67	52	1.1	1.5	1.1	1.9
31	5.7	---	7.5	9.8	---	3.6	---	46	---	1.7	1.1	---
TOTAL	133.3	219.3	232.9	255.6	205.6	167.4	282.0	3213	376.5	42.92	48.1	71.50
MEAN	4.30	7.31	7.51	8.25	7.09	5.40	9.40	104	12.6	1.38	1.55	2.38
MAX	6.0	9.8	9.3	10	10	7.3	67	295	41	6.2	2.2	9.4
MIN	2.0	5.5	6.1	7.0	5.1	3.6	3.0	46	1.1	.85	1.1	.93
AC-FT	264	435	462	507	408	332	559	6370	747	85	95	142

CAL YR 1979 TOTAL 6082.60 MEAN 16.7 MAX 238 MIN 1.7 AC-FT 12060
WTR YR 1980 TOTAL 5248.12 MEAN 14.3 MAX 295 MIN .85 AC-FT 10410

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 11-80003 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 mi² (15,579 km²), of which 303 mi² (785 km²) 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 poor. Diversions for irrigation of about 56,000 acres (230 km²) above station. AVERAGE DISCHARGE.--47 years (water years 1913-14, 1936-80), 189 ft³/s (5,352 m³/s), 136,900 acre-ft/yr (169 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 145,000 ft³/s (4,110 m³/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 ft³/s (2,600 m³/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 ft³/s (2,800 m³/s), but is believed to have been less than the peak of June 18, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,410 ft³/s (68.3 m³/s) June 10, gage height, 6.73 ft (2.051 m), no peak above base of 3,500 ft³/s (99 m³/s); no flow Dec. 30, 31, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.9	1.4	8.7	19	41	5.7	12	30	398	8.3	2.1	.96
2	7.4	1.7	8.5	15	47	5.1	14	34	378	6.4	12	.56
3	6.0	2.9	9.4	20	50	4.8	16	57	332	4.7	12	.32
4	4.1	2.6	11	18	47	4.0	16	77	331	5.3	3.1	.12
5	4.4	2.3	11	17	45	3.5	14	122	286	6.1	.84	.21
6	4.2	2.1	11	17	40	3.2	12	738	250	5.3	.28	.44
7	4.1	2.1	10	14	40	3.0	11	500	239	4.6	5.0	.56
8	3.1	2.6	9.5	15	43	2.6	9.6	851	225	4.3	15	.82
9	2.1	2.6	8.6	18	44	2.5	9.8	1390	220	4.3	8.2	55
10	2.3	2.4	7.9	17	41	2.2	12	1100	373	6.5	13	75
11	2.6	2.4	8.0	21	35	2.0	11	960	1010	4.2	28	43
12	2.0	2.0	7.9	19	37	2.0	12	840	491	3.3	7.9	13
13	2.0	1.6	7.5	18	38	1.6	11	720	415	3.1	3.6	7.0
14	2.1	1.6	7.5	26	39	1.5	10	624	351	4.2	12	7.1
15	2.0	1.5	6.1	25	36	1.3	8.0	576	313	4.0	105	5.6
16	1.5	1.4	6.7	32	37	1.3	6.2	645	277	3.3	11	13
17	.96	1.3	4.9	32	36	1.6	4.7	1560	258	2.7	3.7	11
18	1.1	1.5	6.7	33	36	1.7	4.1	1400	171	2.3	2.1	50
19	.98	1.7	7.0	38	34	1.9	3.2	1140	129	2.7	1.5	52
20	1.2	1.9	7.9	41	32	1.9	2.6	995	111	2.3	1.1	31
21	1.1	1.7	8.1	44	31	2.0	1.8	955	100	2.3	.69	20
22	.81	1.6	10	44	26	2.0	1.4	900	81	2.3	.44	14
23	.86	1.4	10	41	22	2.9	1.0	885	64	2.2	1.4	9.6
24	.92	1.5	6.5	38	23	3.9	3.9	925	50	1.8	1.4	8.4
25	.82	1.7	7.2	36	18	4.2	7.1	885	45	1.4	1.4	6.7
26	.67	2.6	10	39	13	4.5	6.8	880	34	38	1.4	6.3
27	.50	8.4	15	27	9.5	6.3	9.1	820	24	58	1.2	7.6
28	.45	14	20	33	7.9	9.1	10	684	18	40	1.4	6.9
29	.36	12	15	25	6.6	14	24	590	14	11	1.1	6.2
30	1.4	9.1	11	36	---	13	24	537	13	8.4	1.2	5.0
31	1.6	---	17	44	---	14	---	485	---	4.4	1.1	---
TOTAL	72.53	93.6	295.6	862	955.0	129.3	288.3	22905	7001	257.7	260.15	457.39
MEAN	2.34	3.12	9.54	27.8	32.9	4.17	9.61	739	233	8.31	8.39	15.2
MAX	8.9	14	20	44	50	14	24	1560	1010	58	105	75
MIN	.36	1.3	4.9	14	6.6	1.3	1.0	30	13	1.4	.28	.12
AC-FT	144	186	586	1710	1890	256	572	45430	13890	511	516	907

CAL YR 1979 TOTAL 68843.43 MEAN 189 MAX 6110 MIN .36 AC-FT 136600
WTR YR 1980 TOTAL 33577.57 MEAN 91.7 MAX 1560 MIN .12 AC-FT 66600

ARKANSAS RIVER BASIN

07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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										
17...	1235	.79	765	8.2	21.0	16.0	3.7	8.9	15	280
NOV										
15...	0905	1.6	1090	8.8	7.0	5.5	.70	11.6	15	410
DEC										
18...	1210	.63	1090	8.5	17.5	2.0	1.2	11.2	45	420
JAN										
09...	1200	19	995	8.8	3.0	2.0	2.1	12.2	11	400
FEB										
20...	1145	33	1190	8.3	15.5	9.5	11	10.2	14	460
MAR										
18...	1200	1.7	1740	8.4	14.0	10.5	3.4	10.3	14	670
APR										
16...	1200	6.4	2070	8.4	27.5	17.0	4.2	9.0	17	810
MAY										
29...	1230	593	431	8.2	--	18.0	--	--	--	170
JUL										
02...	0940	6.7	825	8.2	30.0	24.0	8.2	7.9	13	360
AUG										
12...	1140	7.4	730	8.5	27.0	23.5	--	6.9	--	290

DATE	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 (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)
OCT										
17...	130	61	31	54	1.4	3.4	150	240	14	.4
NOV										
15...	240	88	47	90	1.9	3.3	170	400	22	.4
DEC										
18...	240	95	45	84	1.8	2.9	180	370	21	.3
JAN										
09...	190	92	41	76	1.7	2.6	210	330	25	.4
FEB										
20...	300	100	51	87	1.8	2.7	160	490	27	.5
MAR										
18...	510	140	78	160	2.7	4.4	160	770	36	.4
APR										
16...	660	170	93	190	2.9	4.5	150	980	48	.4
MAY										
29...	52	44	15	20	.7	1.7	120	100	4.9	.3
JUL										
02...	190	80	38	63	1.5	3.5	170	280	13	.5
AUG										
12...	180	64	31	66	1.7	4.6	110	300	16	.5

07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	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 17...	9.1	529	503	--	.02	.00	.000	.000	.41
NOV 15...	6.5	786	760	--	.00	.02	.030	.030	.36
DEC 18...	10	792	737	--	.01	.08	.020	.010	.33
JAN 09...	11	725	704	--	.02	.00	.010	.020	.04
FEB 20...	8.1	884	863	--	.04	.03	.010	.010	.41
MAR 18...	5.2	1400	1290	--	.00	.03	.100	.100	2.9
APR 16...	5.0	1690	1580	--	.01	.03	.040	.020	.53
MAY 29...	12	284	271	--	.16	.13	--	--	--
JUL 02...	11	593	591	4	.00	.00	.020	.000	.91
AUG 12...	5.5	582	554	--	.23	.01	--	--	--

DATE	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHOPHOSPHATE DISSOL. (MG/L AS P) (00671)	IRON, 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 (MG/L AS C) (00689)
OCT 17...	.43	.010	.010	80	< 10	--	--	2.7	.4
NOV 15...	.39	.020	.000	90	< 10	--	--	13	.1
DEC 18...	.36	.000	.000	70	< 10	10	8.5	9.0	.2
JAN 09...	.07	.000	.000	70	< 10	--	--	3.2	.2
FEB 20...	.46	.030	.000	70	< 10	--	--	2.6	.5
MAR 18...	3.0	.030	.010	110	< 10	8	4.3	6.9	.1
APR 16...	.58	.040	.010	120	40	--	--	5.2	.7
MAY 29...	--	--	.030	--	--	--	--	--	--
JUL 02...	.93	.050	.000	80	< 10	7	7.5	6.3	.4
AUG 12...	--	.150	.000	--	--	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
DEC 18...	1210	2	1	400	90	70	0	< 1	12	0
MAR 18...	1200	1	1	200	80	110	0	< 1	20	0
JUL 02...	0940	2	2	100	100	80	0	< 1	0	0

ARKANSAS RIVER BASIN
07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
DEC 18...	0	< 3	7	0	150	<10	3	0	40
MAR 18...	3	< 3	3	0	190	<10	6	0	110
JUL 02...	0	< 3	8	2	290	<10	19	0	60

DATE	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)	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...	10	.0	.0	0	0	0	0	30	< 3
MAR 18...	8	.0	.0	1	1	0	0	20	< 3
JUL 02...	7	.0	.0	1	1	0	0	40	3

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOC FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 17...	1235	2	10
NOV 15...	0905	0	0
DEC 18...	1210	1	1
JAN 09...	1200	1	10
FEB 20...	1145	0	31
MAR 18...	1200	0	2
APR 16...	1200	5	4
JUL 02...	0940	500	400
AUG 12...	1140	110	260

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (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 17...	1235	.79	16.0	17	.04	93
NOV 15...	0905	1.6	5.5	7	.03	94
DEC 18...	1210	.63	2.0	18	.03	85
JAN 09...	1200	19	2.0	8	.41	99
FEB 20...	1145	33	9.5	23	2.0	99
MAR 18...	1200	1.7	10.5	6	.03	99
APR 16...	1200	6.4	17.0	1	.02	86
MAY 29...	1230	593	18.0	276	442	99
JUL 02...	0940	6.7	24.0	19	.34	96
AUG 12...	1140	7.4	23.5	174	3.5	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 mi² (1,355 km²), of which 130 mi² (337 km²) 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 fair. Diversions for irrigation of about 300 acres (1.2 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--44 years, 15.0 ft³/s (0.425 m³/s), 10,870 acre-ft/yr (13.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,000 ft³/s (1,250 m³/s) Sept. 1, 1942, gage height, 19.96 ft (6.084 m), present datum, from rating curve extended above 760 ft³/s (22 m³/s) on basis of slope-area measurements at gage heights 10.5 ft (3.20 m) and 19.96 ft (6.084 m), present datum; no flow many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 152 ft³/s (4.30 m³/s) June 12, gage height, 2.14 ft (0.652 m), no peak above base of 1,500 ft³/s (42 m³/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.02	.00	.13	.02	.00	.00	.00	.00
2	.00	.00	.00	.00	.02	.01	.10	.02	.00	.00	.00	.00
3	.00	.00	.00	.00	.02	.00	.08	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.02	.00	.06	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.02	.00	.06	.00	.00	.00	.00	.00
6	.00	.00	.01	.00	.02	.00	.02	.00	.00	.00	.00	.00
7	.00	.00	.06	.00	.02	.00	.01	.00	.00	.00	.00	.00
8	.00	.00	.06	.00	.04	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.06	.00	.06	.00	.00	.00	.00	.00	.00	.14
10	.00	.00	.06	.02	.06	.00	.00	.00	.00	.00	.00	3.2
11	.00	.00	.04	.04	.06	.00	.06	.00	.00	.00	.00	.19
12	.00	.00	.04	.04	.06	.00	.01	.00	42	.00	.00	.06
13	.00	.00	.04	.04	.04	.00	.01	.00	9.6	.00	.00	.01
14	.00	.00	.04	.06	.04	.00	.01	.00	2.2	.00	.00	.01
15	.00	.00	.04	.06	.02	.00	.00	.00	.65	.00	.00	.00
16	.00	.00	.04	.04	.02	.00	.00	.00	.29	.00	.50	.00
17	.00	.00	.04	.02	.02	.00	.00	.00	.16	.00	3.6	.00
18	.00	.00	.04	.04	.02	.00	.00	.00	.08	.00	.66	.00
19	.00	.00	.04	.04	.01	.00	.00	.00	.02	.00	.13	.00
20	.00	.00	.06	.04	.00	.00	.00	.00	.00	.00	.01	.00
21	.00	.00	.06	.04	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.08	.04	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.06	.04	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.06	.02	.00	.00	.01	.00	.00	.00	.00	.00
25	.00	.00	.06	.02	.00	.00	.04	.00	.00	.00	.00	.00
26	.00	.00	.06	.01	.00	.00	.02	.00	.00	.00	.00	.00
27	.00	.00	.16	.01	.00	.00	.02	.00	.00	.00	.00	.00
28	.00	.00	.10	.02	.00	.01	.02	.00	.00	.00	.00	.00
29	.00	.00	.05	.02	.00	.10	.02	.00	.00	.00	.00	.00
30	.00	.00	.02	.02	---	.25	.02	.00	.00	.00	.00	.00
31	.00	---	.00	.02	---	.22	---	.00	---	.00	.00	---
TOTAL	.00	.00	1.38	.70	.59	.59	.64	.04	55.00	.00	4.90	3.61
MEAN	.000	.000	.045	.023	.020	.019	.021	.001	1.83	.000	.16	.12
MAX	.00	.00	.16	.06	.06	.25	.13	.02	42	.00	3.6	3.2
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	2.7	1.4	1.2	1.2	1.3	.08	109	.00	9.7	7.2

CAL YR 1979 TOTAL 1371.90 MEAN 3.76 MAX 487 MIN .00 AC-FT 2720
WTR YR 1980 TOTAL 67.45 MEAN .18 MAX 42 MIN .00 AC-FT 134

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 OF RECORD.--October 1942 to current year. Prior to October 1965, published as "near Conchas Dam."
 GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 4,150 ft (1,265 m), from headgate elevations.
 REMARKS.--Records good except those below 1.0 ft³/s (0.03 m³/s), which are poor. Canal diverts from Conchas Lake (station 07223500) for irrigation of about 700 acres (3 km²) on Bell Ranch. Several observations of water temperature were made during the year.
 EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 21 ft³/s (0.595 m³/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 1979 TO SEPTEMBER 1980

Month	Maximum	Minimum	Mean	Diversion in acre-feet
October.....	11	0	1.04	64
November.....	1.7	0	.29	17
December.....	.75	0	.29	18
CAL YR 1979.....	13	0	3.30	2,390
January.....	.93	0	.21	13
February.....	0	0	0	0
March.....	5.6	0	2.27	140
April.....	5.5	0	3.40	202
May.....	4.8	0	1.34	83
June.....	5.8	1.4	5.36	319
July.....	7.3	5.7	6.92	425
August.....	16	0	7.37	453
September.....	16	0	8.85	527
WTR YR 1980.....	16	0	3.11	2,260

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 km²) on Tucumcari Project (1966 conditions).
 COOPERATION.--Records January to September furnished by Corps of Engineers.
 EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 751 ft³/s (21.3 m³/s) Aug. 31, 1961; no flow many days each year.

MONTHLY DIVERSION, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

Month	Maximum	Minimum	Mean	Diversion in acre-feet
October.....	277	0	187	11,500
November.....	0	0	0	0
December.....	0	0	0	0
CAL YR 1979.....	376	0	81.5	58,970
January.....	-	-	0	0
February.....	-	-	0	0
March.....	-	-	0	0
April.....	-	-	107	6,340
May.....	-	-	57.8	3,550
June.....	-	-	252	15,020
July.....	-	-	366	22,490
August.....	-	-	149	9,170
September.....	-	-	88.6	5,270
WTR YR 1980.....	-	-	101	73,340

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 mi² (19,189 km²), of which 433 mi² (1,121 km²), is probably noncontributing.

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

GAGE.--Water-stage recorder. Datum of gage is 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 hm³) 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 hm³) at elevation 4,155.0 ft (1,266.44 m). Lake usually not drawn below elevation, 4,157.35 ft (1,267.160 m), sill of irrigation outlet, capacity, 77,790 acre-ft (95.9 hm³), except for minor sluicing and operation of small powerplant; during 1954-55, 1964 and 1976 there was some pumping into Conchas Canal. Capacity of 198,800 acre-ft (245 hm³) between elevations 4,201.0 ft (1,280.46 m), crest of 300 ft (91.4 m) ungated service spillway, and 4,218.0 ft (1,285.65 m), crest of 3,000 ft (914 m) ungated emergency spillway, acts as detention storage in the control of floods. Figures given herein represent total contents. Lake is used for irrigation, flood control, and recreation. Diversions above station for irrigation of about 57,000 acres (230 km²). Direct diversions through Conchas Dam to Bell Ranch Canal and Conchas Canal (stations 07223000, 07223300) irrigate about 36,000 acres (150 km²) 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 hm³) Apr. 24, 1942, elevation, 4,208.41 ft (1,282.723 m); minimum after initial filling, 78,080 acre-ft (96.3 hm³) 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, 182,200 acre-ft (225 hm³) June 13-14, elevation, 4,181.47 ft (1,274.512 m); minimum, 130,100 acre-ft (160 hm³) Sept. 30, elevation, 4,171.14 ft (1,271.363 m).

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

4,170	125,100
4,180	173,900
4,190	237,100

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164800	150900	150000	150800	152300	153500	152400	145500	180700	173400	147500	136300
2	164200	150900	150000	150800	152400	153400	152400	145600	180700	172700	146600	136200
3	163600	150900	150000	150900	152500	153400	152400	145600	180700	171700	145800	136100
4	163000	150800	150000	150900	152600	153400	152400	145800	180700	170800	145100	135900
5	162500	150700	150100	151000	152600	153400	152400	145900	180500	170000	144200	135900
6	161900	150700	150100	151000	152700	153300	152300	146800	180200	169200	143300	135900
7	161300	150700	150100	151000	152800	153200	152300	147300	179800	168400	142700	135800
8	160800	150600	150100	151000	152900	153200	151700	148500	180000	167700	142000	135800
9	160100	150600	150200	151000	153000	153100	151100	150300	179800	168800	141300	136200
10	159600	150700	150200	151000	153100	153000	150700	152000	179800	166100	140700	136700
11	159000	150700	150200	151100	153200	153000	150200	153400	181400	165300	140400	136900
12	158500	150700	150200	151200	153200	152900	149900	154400	181900	164600	139700	136800
13	158100	150700	150200	151300	153200	152900	149400	155400	182200	163400	138900	136500
14	157500	150600	150200	151300	153300	152900	149100	156400	182200	162400	139000	136200
15	157200	150600	150200	151300	153300	152800	148900	157700	182100	161500	139200	136000
16	156500	150600	150200	151400	153400	152800	148100	158600	181900	160400	139100	135500
17	156000	150500	150200	151400	153400	152700	148100	161500	181800	159500	139100	135200
18	155600	150500	150200	151400	153500	152700	147700	164000	181500	158400	139000	135000
19	155100	150500	150200	151600	153500	152600	147300	166200	181000	157500	138900	134600
20	154700	150300	150200	151700	153600	152500	147000	167800	180600	156500	138800	134200
21	153900	150300	150200	151800	153600	152400	146500	169400	180200	155600	138600	133800
22	153600	150200	150200	151900	153500	152400	145000	170800	179600	154800	138500	133400
23	153100	150200	150200	152000	153500	152400	145500	172200	179000	153900	138400	132800
24	152700	150100	150200	152000	153500	152400	145500	173600	178500	153200	138300	132300
25	152400	150100	150300	152000	153400	152400	145400	175100	177900	152300	137800	132100
26	151900	150000	150300	152000	153500	152300	145400	176400	177000	151600	137300	131600
27	151600	150000	150600	152100	153500	152300	145400	177700	176100	150900	137100	131200
28	151200	150000	150600	152100	153500	152600	145400	178900	175400	150200	137100	130900
29	150900	150000	150700	152200	153500	152600	145400	179800	174700	149800	136900	130500
30	150900	150000	150700	152200	---	152600	145500	180300	174000	149000	136700	130100
31	150900	---	150800	152300	---	152600	---	180600	---	148300	136500	---
MAX	172900	150900	150800	152300	153600	153500	152400	180600	182200	173400	147500	136900
MIN	150900	150000	150000	150800	152300	152300	145000	145500	174000	148300	136500	130100
(†)	4175.59	4175.40	4175.56	4175.87	4176.11	4175.93	4174.47	4181.19	4180.02	4175.05	4172.56	4171.14
(‡)	-14400	-900	+800	+1500	+1200	-900	-7100	+35100	-6600	-25700	-11800	-6400
CAL YR 1979	MAX 179400	MIN 88370	‡ +60070									
WTR YR 1980	MAX 182200	MIN 130100	‡ -35200									

† 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 mi² (5,335 km²), of which 617 mi² (1,598 km²) is probably uncontributing.

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: 1942-46, 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.--38 years, 24.1 ft³/s (0.683 m³/s), 17,460 acre-ft/yr (21.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,500 ft³/s (694 m³/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 ft³/s (220 m³/s) on basis of slope-area measurements at gage heights 5.2 ft (1.58 m) and 7.2 ft (2.19 m); maximum gage height, 8.76 ft (2.670 m) July 17, 1972; no flow most of time.

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 ft³/s (2,000 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 340 ft³/s (9.63 m³/s) July 27, gage height, 2.25 ft (0.686 m), no peak above base of 3,700 ft³/s (100 m³/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
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	1.9	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	13	4.3	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	3.1	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	2.0	2.7	.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	3.2	.00
15	.00	.00	.00	.00	.00	.00	.00	8.4	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	9.6	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	1.8	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	1.0	.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	62	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	.00	.00	39.90	7.00	62.25	3.20	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	1.29	.23	2.01	.10	.000
MAX	.00	.00	.00	.00	.00	.00	.00	13	4.3	62	3.2	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	79	14	123	6.3	.00
CAL YR 1979	TOTAL	12077.50	MEAN 33.1	MAX 1340	MIN .00	AC-FT 23960						
WTR YR 1980	TOTAL	112.35	MEAN .31	MAX 62	MIN .00	AC-FT 223						

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 mi² (28,853 km²), of which 1,110 mi² (2,875 km²) 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 hm³) at elevation 3,760.0 ft (1,146.05 m), crest of 840 ft (260 m) ungated service spillway. Top of dam is at elevation 3,801.0 ft (1,158.54 m). Maximum design capacity of 285,700 acre-ft (352 hm³) 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 hm³) of capacity for protection of the structure. Dead storage, 12,620 acre-ft (15.6 hm³) at elevation 3,725.0 ft (1,135.38 m), sill of outlet gate; inactive pool of 37,530 acre-ft (46.3 hm³) below elevation 3,741.6 ft (1,140.44 m) is maintained for fish and wildlife. Figures given herein represent total contents. Reservoir is planned to furnish water for municipal and industrial uses and for recreational purposes; some incidental flood control. Diversions above station for irrigation of about 90,000 acres (360 km²).

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 119,900 acre-ft (148 hm³) 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 hm³) 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 hm³/s).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 89,640 acre-ft (111 hm³) Oct. 1, elevation, 3,759.78 ft (1,145.981 m); minimum, 68,060 acre-ft (83.9 hm³) Apr. 23, elevation, 3,753.39 ft (1,144.033 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		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89520	87460	82900	82420	78940	69520	68710	69600	74290	72970	70900	73290
2	89450	86980	82900	82390	78970	69520	68870	69600	74100	72780	70780	73190
3	89290	86400	82870	82390	79000	69650	68840	69600	74070	72680	70680	73160
4	89260	85790	82870	82390	79040	69430	68840	69600	74000	72560	70620	73070
5	89180	85140	82700	82390	78670	69520	68840	69600	73940	72430	70490	73100
6	89100	84460	82670	82320	78130	69490	68780	69600	73840	72300	70490	73130
7	89070	83860	82670	82280	77600	69370	68710	70500	73650	72200	70430	73100
8	88950	83430	82670	82320	77000	69400	68620	72520	73810	72050	70270	73100
9	88840	83330	82700	82320	76410	69400	68650	73320	73870	71950	70210	74320
10	88840	83400	82870	82140	75850	69370	68590	73580	74360	71890	70050	77300
11	88800	83400	82600	81450	75230	69370	68560	73550	74450	71790	69960	77770
12	88690	83400	82670	80870	74740	69270	68500	73390	74480	71730	69960	77830
13	88610	83360	82600	80220	74160	69270	68430	73320	74450	71600	70020	77830
14	88500	83360	82630	79740	74610	69270	68430	73320	74390	71440	71130	77800
15	88500	83360	82630	79270	72970	69240	68460	73810	74230	71350	72840	77800
16	88390	83360	82530	79310	72490	69180	68400	74450	74160	71380	73610	77630
17	88310	83470	82560	79310	71850	69210	68370	74780	74100	71350	73610	77630
18	88280	83330	82560	79270	71540	69180	68370	74840	74130	71410	73550	77630
19	88280	83290	82560	79210	70870	69150	68340	74940	74000	71350	73520	77600
20	88060	83330	82600	79270	70270	69090	68340	74940	74000	71310	73420	77500
21	87830	83150	82630	79240	69830	69120	68310	74840	74000	71220	73290	77400
22	87800	83150	82600	79210	69620	68930	68250	74840	73810	71220	73260	77240
23	87800	83100	82460	79240	69650	68960	68190	74810	73810	71090	73160	77240
24	87760	83100	82460	79210	69680	68960	68500	74810	73780	71130	73070	77100
25	87760	83100	82530	79170	69680	68930	69240	74650	73550	70970	73000	77000
26	87720	83100	82460	79000	69680	68900	69490	74550	73480	70970	73030	77000
27	87610	83000	82420	79040	69710	68930	69590	74480	73390	71030	73290	77040
28	87570	83000	82420	78940	69620	68870	69620	74480	73190	71280	73520	77000
29	87460	83000	82420	79000	69550	68870	69620	74420	73190	71220	73520	76970
30	87830	83000	82390	78940	---	68900	69600	74290	73070	71090	73450	76940
31	87800	---	82420	78970	---	68870	---	74390	---	71030	73360	---
MAX	89520	87460	82900	82420	79040	69650	69620	74940	74480	72970	73610	77830
MIN	87460	83000	82390	78940	69550	68870	68190	69600	73070	70970	69960	73070
(†)	3759.29	-	3757.79	3756.78	3753.87	3753.65	-	3755.39	3754.98	3754.34	3755.07	3756.17
(‡)	-1840	-4800	-580	-3450	-9420	-680	+730	+4790	-1320	-2040	+2330	+3580

CAL YR 1979 MAX 92610 MIN 74840 † +5620

WTR YR 1980 MAX 89520 MIN 68190 ‡ -12700

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

ARKANSAS RIVER BASIN

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 years 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.

07226510 - UTE RESERVOIR AT SITE F (LAT 35 20 21 LONG 103 33 07)
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	SAMP- LING DEPTH (FT) (00003)	RESER- VOIR DEPTH (FEET) (72025)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS (MG/L CACO3) (00900)
APR 17...	0910	16.0	21	830	8.7	19.5	10.5	8.6	180
AUG 13...	0921	.0	24	--	--	--	23.0	7.4	--
13...	0922	5.0	24	--	--	--	23.0	7.4	--
13...	0923	10.0	24	--	--	--	23.0	7.3	--
13...	0924	15.0	24	--	--	--	22.5	6.6	--
13...	0925	19.0	24	810	8.3	24.0	22.5	6.6	160

DATE	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 (MG/L CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
APR 17...	24	39	21	130	4.2	6.2	160	210	45
AUG 13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	0	32	20	140	4.8	7.0	220	180	42

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 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHOPH- OSPHATE DISSOL. (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
APR 17...	1.0	2.1	605	551	.04	.010	250	< 10
AUG 13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	1.0	2.3	565	557	.00	.000	270	< 10

07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

07226510 - UTE RESERVOIR AT SITE F - Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
APR 17...	0910	16.0	21	0	0
AUG 13...	0925	19.0	24	4	3

07226515 - UTE RESERVOIR AT SITE 1 - (LAT 35 21 03 LONG 103 31 00)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	SAMP- LING DEPTH (FT) (00003)	RESER- VOIR DEPTH (FEET) (72025)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS (MG/L AS CACO3) (00900)
APR 17...	0924	25.0	30	850	8.6	20.0	11.0	8.6	160
AUG 13...	0944	.0	35	--	--	--	23.0	7.1	--
13...	0945	5.0	35	--	--	--	23.0	7.1	--
13...	0946	10.0	35	--	--	--	23.0	7.1	--
13...	0947	15.0	35	--	--	--	23.0	7.1	--
13...	0948	20.0	35	--	--	--	23.0	7.1	--
13...	0949	25.0	35	--	--	--	23.0	7.1	--
13...	0950	30.0	35	810	7.9	27.5	23.0	7.0	160

DATE	HARD- NESS, NONCAR- BONATE (MG/L AS 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 (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
APR 17...	0	34	18	130	4.5	6.2	210	180	36
AUG 13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	0	33	20	140	4.7	6.8	220	190	41

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 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
APR 17...	1.0	3.6	548	536	.08	.010	230	< 10
AUG 13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	1.0	2.2	560	566	.00	.000	210	< 10

ARKANSAS RIVER BASIN

07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

07226515 - UTE RESERVOIR AT SITE 1 - Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
APR 17...	0924	25.0	30	0	1
AUG 13...	0950	30.0	35	5	10

07226520 - UTE RESERVOIR AT SITE G (LAT 35 23 35 LONG 103 30 00)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	SAMP- LING DEPTH (FT) (00003)	RESER- VOIR DEPTH (FEET) (72025)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS (MG/L AS CACO3) (00900)
APR 17...	0940	1.0	2.5	860	8.7	18.0	11.0	8.2	170
AUG 13...	1015	2.0	3.0	890	8.3	29.5	22.5	6.7	180

DATE	TIME	HARD- NESS, NONCAR- BONATE (MG/L AS 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 AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
APR 17...	0	36	20	130	4.3	6.3	210	190	38	
AUG 13...	0	34	22	150	4.9	7.6	240	190	43	

DATE	TIME	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)	PHOS- PHORUS, ORTHOPH- OSPHATE DISSOL. (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
APR 17...	.9	3.5	579	552	.07	.010	230	10	
AUG 13...	1.0	2.6	598	595	.00	.000	280	< 10	

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
APR 17...	0940	1.0	2.5	2	4
AUG 13...	1015	2.0	3.0	10	2

07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

07226560 - UTE RESERVOIR AT SITE B (LAT 35 20 32 LONG 103 27 16)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	SAMP- LING DEPTH (FT) (000003)	RESER- VOIR DEPTH (FEET) (72025)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)
APR										
17...	0800	45.0	50	860	8.6	17.0	10.0	13	7.3	17
17...	0820	5.0	50	860	8.6	17.5	11.0	7.1	8.6	17
AUG										
13...	0832	5.0	50	800	8.2	26.5	24.5	2.4	7.4	15
13...	0833	10.0	50	--	--	--	23.0	--	7.4	--
13...	0834	15.0	50	--	--	--	23.0	--	7.4	--
13...	0835	20.0	50	--	--	--	23.0	--	7.4	--
13...	0836	25.0	50	--	--	--	23.0	--	7.1	--
13...	0837	30.0	50	--	--	--	23.0	--	6.7	--
13...	0838	35.0	50	--	--	--	23.0	--	5.9	--
13...	0839	40.0	50	--	--	--	22.0	--	5.3	--
13...	0840	45.0	50	800	7.7	26.5	18.5	6.6	.1	20

DATE	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)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
APR										
17...	160	43	34	19	130	4.4	6.2	120	190	37
17...	--	--	--	--	--	--	6.2	210	180	37
AUG										
13...	160	0	32	19	140	4.8	7.3	220	180	41
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	160	0	35	18	130	4.5	6.0	220	160	39

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)
APR									
17...	1.0	3.9	550	494	.08	.09	.040	.000	1.2
17...	1.0	--	546	--	.08	.09	.000	--	4.0
AUG									
13...	1.0	1.5	565	555	.00	.00	.000	.000	.91
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	.9	4.0	553	526	.00	.00	.240	.200	.76

ARKANSAS RIVER BASIN

07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

07226560 - UTE RESERVOIR AT SITE B - Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHOPH DISSOL. (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 (MG/L AS C) (00689)
APR									
17...	1.3	.040	.010	230	< 10	1	5.5	7.9	.4
17...	4.1	.030	.010	230	--	--	5.6	4.5	.3
AUG									
13...	.91	.020	.000	260	< 10	2	11	7.1	.3
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	1.0	.000	.000	280	< 10	200	9.2	5.5	.3

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
APR										
17...	0800	4	2	400	300	230	1	1	10	0
17...	0820	3	2	400	--	230	0	--	0	0
AUG										
13...	0835	4	3	300	300	260	0	1	0	10
13...	0840	6	5	300	300	280	0	1	0	10

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)
APR									
17...	0	<3	0	2	420	<10	1	2	10
17...	0	--	0	0	160	--	0	0	10
AUG									
13...	1	<3	7	1	80	<10	77	0	10
13...	1	<3	4	0	190	<10	6	0	210

DATE	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)	SELE- NIUM, TOTAL RECOV- ERABLE (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)
APR									
17...	1	.0	.0	1	1	0	0	40	<3
17...	--	.3	.0	1	1	0	0	30	--
AUG									
13...	2	.1	.0	0	1	0	0	90	<3
13...	200	.1	.0	0	0	0	0	30	3

ARKANSAS RIVER BASIN

07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

07226560 - UTE RESERVOIR AT SITE B - Continued

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
APR											
17...	0800	45.0	50	9.7	.6	11	2.2	11	2.2	.15	7.9
17...	0820	5.0	50	9.7	.6	11	2.2	11	2.2	.15	7.9
AUG											
13...	0840	45.0	50	9.2	.6	13	1.8	12	1.7	.14	6.6

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
APR 17...	0800	.00	.00	.0	.00	.00	.00	.00	.00
AUG 13...	0840	.00	.00	.0	.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)
APR 17...	.00	.00	.00	.00	.00	.00	.00	.00	.00
AUG 13...	.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)
APR 17...	.00	.00	0	.00	.00	.00	.00	.0	.00
AUG 13...	.00	.00	0	.00	.00	.00	.00	.0	.00

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
APR					
17...	0800	45.0	50	0	5
17...	0820	5.0	50	0	1
AUG					
13...	0835	5.0	50	9	2
13...	0840	45.0	50	8	9

ARKANSAS RIVER BASIN

07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

07226560 - UTE RESERVOIR AT SITE B - Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

IDENTIFICATION OF PHYTOPLANKTON

DATE	APR 17,80	AUG 13,80
TIME	0800	0835
TOTAL CELLS/ML	15000	1900
DIVERSITY: DIVISION	0.4	1.0
..CLASS	0.4	1.0
..ORDER	0.6	1.8
...FAMILY	0.6	2.0
....GENUS	0.6	2.4
ORGANISM	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OOCYSTACEAE		
....KIRCHNERIELLA	--	39 2
....OOCYSTIS	530 4	100 5
....SELENASTRUM	*	0 --
...SCENEDESMACEAE		
....CRUCIGENIA	--	120 6
....SCENEDESMUS	--	130 7
..TETRASPORALES		
...COCCOMYXACEAE		
....ELAKATOTHRIX	--	39 2
...PALMELLACEAE		
....SPHAEROCYSTIS	330 2	--
..VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CHLAMYDOMONAS	--	26 1
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
...CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	*	0 39 2
...PENNALES		
...CYMBELLACEAE		
....CYMBELLA	*	0 --
CRYPTOPHYTA (CRYPTOMONADS)		
..CRYPTOPHYCEAE		
...CRYPTOMONADALES		
...CRYPTOCHRYSIDACEAE		
....CHROOMONAS	--	13 1
CYANOPHYTA (BLUE-GREEN ALGAE)		
..CYANOPHYCEAE		
...CHROOCOCCALES		
...CHROOCOCCACEAE		
....AGMENELLUM	--	820# 44
....ANACYSTIS	390 3	77 4
...HORMOGONALES		
...NOSTOCACEAE		
....APHANIZOMENON	13000# 91	--
...OSCILLATORIACEAE		
....OSCILLATORIA	--	480# 25

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

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 mi² (28,855 km²), of which 1,110 mi² (2,875 km²) is probably noncontributing.

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

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 fair prior to July and poor 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 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years (water years 1909, 1912-13, 1927-38), 392 ft³/s (11.10 m³/s) 284,000 acre-ft/yr (350 hm³/yr), prior to completion of Conchas Dam; 24 years (water years 1939-62), 257 ft³/s (7.278 m³/s), 186,200 acre-ft/yr (230 hm³/yr), prior to completion of Ute Dam; 18 years (water years 1963-80) 29.4 ft³/s (0.833 m³/s) 21,300 acre-ft/yr (26.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1925).--Maximum discharge, 219,000 ft³/s (6,200 m³/s) Sept. 22, 1941, gage height, 29.3 ft (8.93 m) from floodmarks, from rating curve extended above 75,000 ft³/s (2,100 m³/s); no flow at times prior to completion of Ute Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 278,000 ft³/s (7,870 m³/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 ft³/s (400 m³/s), from Ninth Biennial Report of State Engineer.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 336 ft³/s (9.52 m³/s) Nov. 1, gage height 3.75 ft (1.143 m); minimum, 1.1 ft³/s (0.031 m³/s) Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	170	2.9	2.7	2.1	3.2	2.5	1.7	2.0	1.7	1.5	1.2
2	1.8	329	3.1	2.7	2.1	3.1	3.6	1.7	2.0	1.7	1.5	1.2
3	1.7	324	3.1	2.7	2.1	3.0	2.9	1.8	2.0	1.8	1.5	1.2
4	1.6	321	2.9	2.7	2.1	2.8	2.7	1.9	2.0	1.6	1.5	1.2
5	1.6	317	2.7	2.5	165	2.9	2.7	1.9	1.9	1.5	1.9	1.5
6	1.6	313	2.7	2.5	310	2.8	2.5	1.9	1.8	1.5	2.2	3.0
7	1.6	311	2.7	2.3	310	2.7	2.3	2.1	1.7	1.5	1.6	2.8
8	1.6	233	2.7	2.3	310	2.7	2.1	3.0	3.1	1.5	1.5	1.9
9	1.6	5.1	2.7	2.3	310	2.8	2.3	2.0	2.4	1.6	1.5	1.8
10	1.9	4.0	2.7	86	310	2.7	2.3	1.9	3.8	1.5	1.4	2.2
11	1.9	3.5	2.5	281	312	2.7	2.1	1.8	2.9	1.5	1.3	2.6
12	1.9	3.1	2.7	285	310	2.4	2.3	1.7	2.3	1.5	1.3	2.0
13	1.9	3.1	2.7	285	310	2.4	2.1	2.0	2.1	1.6	2.0	1.5
14	1.9	3.1	2.7	285	310	3.7	2.1	2.2	1.9	1.5	1.1	1.5
15	1.9	3.1	2.7	204	311	5.6	2.1	3.5	1.7	1.5	2.9	1.5
16	1.8	3.1	2.7	4.3	309	4.8	2.1	2.7	1.8	2.8	2.3	1.5
17	1.9	3.1	2.7	3.1	306	4.4	1.9	2.3	2.1	3.2	1.8	1.5
18	2.0	2.9	2.7	2.7	304	3.9	2.0	2.4	2.1	1.9	1.4	1.5
19	2.3	3.0	2.7	2.3	303	3.7	2.0	2.4	2.0	1.5	1.2	1.5
20	2.5	3.0	2.7	2.5	300	3.6	2.0	2.4	2.1	1.3	1.2	1.5
21	2.2	2.9	2.7	2.5	216	3.6	1.9	2.3	2.2	1.8	1.2	1.5
22	2.0	2.7	2.5	2.3	6.6	3.6	2.0	2.3	1.9	1.9	1.2	1.5
23	1.9	2.9	2.5	2.3	4.2	3.8	1.9	2.4	1.9	1.9	1.2	1.5
24	2.0	2.7	2.5	2.3	3.7	3.3	3.1	2.3	1.7	3.1	1.2	1.5
25	2.0	2.7	2.5	2.3	3.4	3.3	3.0	2.1	1.5	2.1	1.2	1.5
26	2.1	2.9	2.5	2.2	3.2	3.3	1.8	2.2	1.5	2.1	1.2	2.3
27	1.8	2.9	2.5	2.0	3.2	3.6	1.8	2.3	1.5	2.0	1.2	2.9
28	1.8	2.9	2.7	2.1	3.3	3.3	1.7	2.7	1.5	1.5	1.2	2.7
29	1.8	2.9	2.7	2.1	3.2	3.1	1.6	2.3	1.7	1.5	1.2	2.3
30	3.1	2.9	2.7	2.1	---	3.1	1.7	2.3	1.7	1.5	1.2	1.8
31	2.5	---	2.7	2.1	---	2.9	---	2.2	---	1.5	1.2	---
TOTAL	59.9	2386.5	83.5	1487.9	5045.2	102.8	67.1	68.7	60.8	55.1	55.7	54.0
MEAN	1.93	79.6	2.69	48.0	174	3.32	2.24	2.22	2.03	1.78	1.80	1.80
MAX	3.1	329	3.1	285	312	5.6	3.6	3.5	3.8	3.2	1.1	3.0
MIN	1.6	2.7	2.5	2.0	2.1	2.4	1.6	1.7	1.5	1.3	1.2	1.2
AC-FT	119	4730	166	2950	10010	204	133	136	121	109	110	107

CAL YR 1979 TOTAL 7439.2 MEAN 20.4 MAX 968 MIN 1.0 AC-FT 14760
WTR YR 1980 TOTAL 9527.2 MEAN 26.0 MAX 329 MIN 1.2 AC-FT 18900

ARKANSAS RIVER BASIN

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 mi² (2,036 km²).

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.

REMARKS.--Water-discharge records poor. Low flows supplemented by surface and ground water return from irrigation in vicinity of Tucumcari.

AVERAGE DISCHARGE.--21 years, 44.2 ft³/s (1,252 m³/s), 32,020 acre-ft/yr (39.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,700 ft³/s (756 m³/s) July 9, 1960, gage height, 14.3 ft (4.36 m); no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD (1941-47).--Maximum discharge determined, about 13,400 ft³ (379 m³/s)

Sept. 18, 1946, gage height, 9.04 ft (2.755 m), at site 500 ft (150 m) downstream at different datum, from unpublished records collected by Bureau of Reclamation.

A peak of 26,100 ft³/s (739 m³/s), date unknown, gage height, 12.9 ft (3.93 m), was measured by slope-area method in May 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,650 ft³/s (75.0 m³/s) Aug. 5, gage height, 5.11 ft (1.558 m³/s), no peak above base of 3,500 ft³/s (99 m³/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	85	.20	.00	.80	.00	.00	4.9	.00	.00	.00	12
2	2.0	28	.18	.00	.87	.00	.01	3.1	.00	.00	.00	4.6
3	1.0	6.6	.14	.00	2.4	.00	31	1.0	.00	.00	.00	1.3
4	.50	2.6	.02	.20	3.4	.00	5.2	.24	.00	.00	1.1	1.0
5	.20	2.0	.00	.03	2.2	.00	1.4	.00	.00	.00	315	10
6	.00	1.8	.00	.14	1.2	.00	.58	.07	.00	.00	88	50
7	1.0	1.1	.00	.10	1.2	.00	.03	33	.00	.00	15	25
8	3.0	.88	.00	.05	1.0	.00	.00	181	1.7	.00	5.0	15
9	5.0	2.4	.00	.03	1.0	.00	.00	75	.67	15	2.0	9.4
10	6.5	9.4	.00	.01	2.0	.00	.00	16	66	2.9	.50	318
11	6.6	27	.00	.00	5.0	.00	.00	3.4	242	.38	.20	91
12	6.5	7.1	.00	.00	7.5	.00	20	.93	27	.00	.00	23
13	6.3	2.7	.00	.00	11	.00	15	1.2	12	.00	.00	6.7
14	6.0	1.7	.00	.00	7.3	.00	9.0	1.3	7.8	.00	100	13
15	6.0	1.2	.03	.00	4.7	.00	7.0	545	6.8	.00	50	8.7
16	6.1	1.1	.06	.00	3.1	.00	3.3	549	4.2	.01	30	5.3
17	6.5	.87	.05	.00	3.9	.00	1.4	200	3.2	.00	20	2.5
18	6.5	.51	.05	.00	12	.00	1.0	77	2.2	.00	15	.54
19	6.3	.31	.00	.00	14	.00	.97	43	.84	.00	10	.00
20	6.0	.19	.00	.21	7.2	.00	.42	22	.16	.00	7.0	.00
21	6.4	.00	.00	.22	1.8	.00	.67	15	18	.07	3.8	.00
22	9.3	.00	.00	.97	.50	.00	.65	10	4.9	.00	334	.00
23	11	.02	.00	1.9	.12	.00	.28	8.0	3.1	.00	69	.00
24	9.2	.04	.01	1.9	.00	.00	8.5	4.9	.60	1.3	9.2	.00
25	10	.15	.00	1.9	.00	.00	61	2.4	.00	.12	.15	.00
26	9.3	.04	.00	1.8	.00	.00	92	1.8	.00	.97	.00	1.0
27	7.1	.00	.00	1.2	.00	.00	54	1.7	.00	1.1	320	37
28	7.1	.00	.00	1.0	.00	.00	23	2.4	.00	3.1	488	19
29	7.1	.00	.00	.50	.00	.00	9.5	1.4	.00	4.4	129	13
30	16	.01	.00	.60	---	.08	6.4	.59	.00	3.3	56	9.5
31	135	---	.08	.75	---	.00	---	.45	---	1.0	27	---
TOTAL	313.50	182.72	.82	13.51	94.19	.08	352.31	1805.78	401.17	33.65	2094.95	676.54
MEAN	10.1	6.09	.026	.44	3.25	.003	11.7	58.3	13.4	1.09	67.6	22.6
MAX	135	85	.20	1.9	14	.08	92	549	242	15	488	318
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	622	362	1.6	27	187	.2	699	3580	796	67	4160	1340
CAL YR 1979	TOTAL	7703.06	MEAN	21.1	MAX	1450	MIN	.00	AC-FT	15280		
WTR YR 1980	TOTAL	5969.22	MEAN	16.3	MAX	549	MIN	.00	AC-FT	11840		

07227100 REVUELTO CREEK NEAR LOGAN, NM -- Continued

WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS (MG/L AS CACO3) (00900)
OCT								
18...	1155	6.5	1040	8.5	25.0	20.0	8.5	270
NOV								
15...	1325	1.2	1290	8.6	16.0	14.0	9.5	250
DEC								
19...	1155	.01	3650	8.3	15.0	3.0	14.7	270
JAN								
10...	1205	.01	3790	8.4	13.5	9.5	10.4	300
FEB								
21...	1345	1.6	2050	8.5	19.0	14.0	9.4	270
MAR								
19...	1147	.01	5610	8.5	19.0	21.5	8.5	380
APR								
15...	1230	6.0	2110	8.0	--	6.5	--	--
16...	1445	2.1	2100	8.7	20.5	21.0	7.9	450
JUL								
09...	1030	30	1120	7.7	--	27.0	--	110
AUG								
12...	1415	8.0	1500	8.6	31.0	26.0	7.2	320
SEP								
30...	0930	8.9	1030	8.6	--	16.0	--	220

DATE	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 (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
OCT									
18...	99	63	27	110	2.9	6.8	170	280	46
NOV									
15...	37	56	26	190	5.3	3.9	210	320	100
DEC									
19...	0	52	35	690	18	4.9	320	280	870
JAN									
10...	0	57	38	800	20	4.7	300	280	1100
FEB									
21...	34	57	32	360	9.5	3.7	240	450	270
MAR									
19...	4	63	55	1100	24	6.5	380	340	1400
APR									
15...	--	--	--	--	--	--	--	--	--
16...	250	87	57	350	7.2	6.3	200	770	150
JUL									
09...	0	29	8.9	200	8.3	5.4	200	290	38
AUG									
12...	160	68	36	200	4.9	10	160	410	130
SEP									
30...	50	50	23	140	4.1	5.0	170	280	51

ARKANSAS RIVER BASIN

07227100 REVUELTO CREEK NEAR LOGAN, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT 18...	.5	5.6	--	641	.01	--	--	--
NOV 15...	.5	6.7	--	831	.32	--	--	--
DEC 19...	.8	8.9	--	2130	.08	--	--	--
JAN 10...	.8	9.5	--	2470	.00	--	--	--
FEB 21...	.7	10	--	1330	.61	--	--	--
MAR 19...	1.0	8.9	--	3200	.02	--	--	--
APR 15...	--	--	--	--	--	--	--	--
APR 16...	.8	6.1	--	1550	.02	--	--	--
JUL 09...	.6	13	--	706	.29	--	--	--
AUG 12...	.6	9.2	--	960	.02	--	--	--
SEP 30...	.5	6.2	682	658	.00	.000	210	<10

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 18...	1155	6.5	20.0	163	2.9	--
NOV 15...	1325	1.2	14.0	71	.23	--
DEC 19...	1155	.01	3.0	47	.00	46
JAN 10...	1205	.01	9.5	20	.00	96
FEB 21...	1345	1.6	14.0	231	1.0	97
MAR 19...	1147	.01	21.5	12	.00	79
APR 15...	1230	6.0	6.5	221	3.6	--
APR 16...	1445	2.1	21.0	84	.48	--
JUL 09...	1030	30	27.0	27600	2240	94
AUG 12...	1415	8.0	26.0	39	.84	--
SEP 30...	0930	8.9	16.0	150	3.6	85

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 mi² (32,675 km²).

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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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 18...	0907	9.5	6750	8.4	20.5	13.5	12	9.6	160	530
NOV 16...	0840	22	5350	8.7	7.0	4.5	78	12.0	70	500
DEC 19...	0915	9.8	8540	8.4	11.0	2.0	23	11.9	43	680
JAN 10...	0840	14	9070	8.3	13.5	1.0	6.9	12.5	51	680
FEB 21...	0905	281	1180	8.4	14.0	6.0	320	11.3	29	180
MAR 19...	0921	6.4	8000	8.4	22.5	8.0	1.2	11.0	45	670
APR 17...	1130	8.7	8480	8.3	23.0	18.5	24	9.2	120	650

DATE	HARD- NESS, NONCAR- BONATE (MG/L AS 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- LITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
OCT 18...	330	99	68	1300	25	11	200	410	2000
NOV 16...	250	110	55	1100	21	8.3	250	380	1600
DEC 19...	410	140	80	1700	28	11	270	410	2500
JAN 10...	380	140	80	1700	28	9.5	300	440	2500
FEB 21...	0	36	21	200	6.6	6.2	210	140	190
MAR 19...	430	130	83	1600	27	12	240	420	2500
APR 17...	410	130	80	1700	29	11	240	430	2500

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 CONSTITU- ENTS, 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 18...	.5	9.6	4060	4020	.03	.04	.020	.040	.45
NOV 16...	.6	9.8	3390	3420	.52	.54	.080	.100	.61
DEC 19...	.4	13	4920	5020	.51	.50	.060	.070	.71
JAN 10...	.5	12	5400	5060	.40	.39	.010	.010	.58
FEB 21...	1.0	5.8	734	727	.14	.13	.060	.060	1.3
MAR 19...	.5	9.5	4870	4900	.22	.24	.120	.080	.78
APR 17...	.6	11	5380	5010	.17	.18	.020	.020	.78

ARKANSAS RIVER BASIN

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITRO- GEN, TOTAL (MG/L AS N) (006600)	PHOS- PHORUS, TOTAL (MG/L AS P) (006655)	PHOS- ORTHOPH OSPHATE DISSOL. (MG/L AS P) (006711)	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- PENDE (MG/L AS C) (00689)
OCT 18...	.50	.010	.010	360	10	--	4.6	3.5	.5
NOV 16...	1.2	.060	.010	300	20	--	15	15	.1
DEC 19...	1.3	.020	.000	320	10	130	--	4.5	.2
JAN 10...	.99	.000	.000	340	30	--	3.7	2.5	--
FEB 21...	1.5	.440	.000	220	10	--	7.2	5.0	2.3
MAR 19...	1.1	.020	.000	330	20	120	--	6.7	.1
APR 17...	.97	.050	.080	360	40	--	7.7	4.1	.3

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
DEC 19...	0915	2	1	700	300	320	0	0	16	0
JAN 10...	0840	--	--	--	--	340	--	--	--	--
MAR 19...	0921	2	1	300	200	330	0	0	10	10
APR 17...	1130	--	--	--	--	360	--	--	--	--

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 19...	0	0	6	0	400	10	2	0	130	130
JAN 10...	--	--	--	--	--	30	--	--	--	--
MAR 19...	2	0	3	0	150	20	3	0	130	120
APR 17...	--	--	--	--	--	40	--	--	--	--

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 RECOV- ERABLE (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 19...	.1	.0	5	0	1	0	0	0	40	0
JAN 10...	--	--	--	--	--	--	0	--	--	--
MAR 19...	.0	.1	2	0	1	1	0	0	20	10
APR 17...	--	--	--	--	--	--	0	--	--	--

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

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
18...	0907	73	160
NOV			
16...	0840	10	80
DEC			
19...	0915	1	26
JAN			
10...	0840	1	7
FEB			
21...	0905	0	120
MAR			
19...	0921	0	1
APR			
17...	1130	1	2

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 16, 79	MAR 19, 80
TIME	0840	0921
TOTAL CELLS/ML	200	150
DIVERSITY: DIVISION	1.0	0.4
..CLASS	1.0	0.4
..ORDER	1.8	0.4
...FAMILY	2.2	2.1
....GENUS	2.6	2.1

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)				
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
....OOCYSTACEAE				
....ANKISTRODESMUS	29	14	--	-
....OOCYSTIS	57#	29	--	-
...VOLVOCALES				
...CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS	14	7	13	8
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE				
...CENTRALES				
...COSCINODISCACEAE				
....CYCLOTELLA	43#	21	--	-
...PENNALES				
...ACHNANTHACEAE				
....ACHNANTHES	--	-	26#	17
...DIATOMACEAE				
....DIATOMA	--	-	13	8
...GOMPHONEMACEAE				
....GOMPHONEMA	14	7	--	-
...NAVICULACEAE				
....NAVICULA	14	7	39#	25
...NITZSCHACEAE				
....NITZSCHIA	29	14	65#	42

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

ARKANSAS RIVER BASIN

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 1979 TO SEPTEMBER 1980

PERIPHYTON

DATE	TIME	LENGTH OF EXPO- SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00022)	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
NOV 16...	0840	29	.550	.320	.000	.000	--	Polyethylene strip
DEC 19...	0915	23	10.5	10.4	.440	.000	227	"
JAN 10...	0840	27	1.57	1.50	.150	.000	467	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (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 18...	0907	9.5	13.5	34	.87	88
NOV 16...	0840	22	4.5	134	8.1	83
DEC 19...	0915	9.8	2.0	44	1.2	80
JAN 10...	0840	14	1.0	27	1.0	72
FEB 21...	0905	281	6.0	1210	918	77
MAR 19...	0921	6.4	8.0	22	.38	55
APR 17...	1130	8.7	18.5	26	.61	83

RIO GRANDE BASIN

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 mi² (19,900 km²), approximately, including 2,940 mi² (7,610 km²) 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 ft³/s (23.96 m³/s), 612,900 acre-ft/yr (756 hm³/yr), includes period of extensive development for irrigation; 50 years (water years 1931-80), 416 ft³/s (11.78 m³/s), 301,400 acre-ft/yr (372 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 13,200 ft³/s (374 m³/s) June 8, 1905, gage height, 9.1 ft (2.77 m), from rating curve extended above 8,000 ft³/s (230 m³/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 discharge, 3,230 ft³/s (91.5 m³/s) June 13, gage height, 4.50 ft (1.372 m); minimum daily, 17 ft³/s (0.48 m³/s) Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	71	105	200	290	405	370	1700	2980	1260	250	34
2	40	78	110	205	290	400	375	1750	2900	1230	258	29
3	40	105	120	215	290	395	365	1590	2740	1310	250	26
4	40	130	120	225	295	410	365	1440	2700	1320	226	22
5	38	130	130	235	300	405	360	1590	2740	1280	195	19
6	38	120	140	245	300	400	365	1720	2900	1150	178	18
7	38	118	155	255	300	405	375	1820	3030	970	230	18
8	38	122	165	255	230	390	385	2050	3040	1010	325	18
9	38	128	165	265	285	380	395	2250	3020	1020	335	17
10	38	133	165	265	300	365	385	2450	2970	970	340	19
11	38	128	170	265	295	370	370	2390	3080	880	340	23
12	37	122	175	270	290	365	390	2330	3120	713	320	54
13	37	115	165	285	300	360	420	2310	3140	629	290	154
14	37	115	165	300	320	360	405	1930	2680	556	270	148
15	37	110	165	305	330	355	385	1870	2290	514	254	82
16	37	115	175	310	340	365	385	2040	2090	450	167	50
17	37	120	175	325	355	365	420	1910	1950	415	108	33
18	38	130	170	330	380	370	490	1660	1850	380	88	27
19	38	120	165	310	400	350	544	1680	1820	310	76	24
20	41	90	175	330	425	345	752	1860	1870	278	60	23
21	48	95	180	315	410	350	979	2100	1950	274	48	22
22	53	90	185	285	400	355	1170	2330	1820	282	43	20
23	51	85	190	250	390	360	1350	2670	1670	286	50	21
24	60	85	175	265	380	380	1430	2920	1570	254	55	21
25	92	95	180	275	365	395	1570	3060	1520	250	60	21
26	82	105	185	290	365	380	1330	3000	1500	330	69	22
27	82	90	190	290	375	385	1240	2750	1520	335	170	22
28	80	90	190	295	400	385	1200	2540	1530	294	122	23
29	78	90	185	300	415	390	1260	2590	1470	282	90	24
30	73	105	200	305	---	375	1450	2670	1350	278	65	23
31	73	---	190	305	---	375	---	2920	---	238	44	---
TOTAL	1537	3230	5125	8570	9815	11690	21280	67890	68810	19748	5376	1057
MEAN	49.6	108	165	276	338	377	709	2190	2294	637	173	35.2
MAX	92	133	200	330	425	410	1570	3060	3140	1320	340	154
MIN	37	71	105	200	230	345	360	1440	1350	238	43	17
AC-FT	3050	6410	10170	17000	19470	23190	42210	134700	136500	39170	10660	2100
CAL YR 1979	TOTAL	315493	MEAN	864	MAX	4690	MIN	37	AC-FT	625800		
WTR YR 1980	TOTAL	224128	MEAN	612	MAX	3140	MIN	17	AC-FT	444600		

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, 573 micromhos Oct. 25; minimum daily, 132 micromhos Aug. 10.

WATER TEMPERATURES: Maximum, 27.5°C July 16, 20, 21, 23; minimum, freezing point on many days during winter months.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (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) (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)
NOV												
01...	1315	69	370	8.4	7.5	1.5	12.2	130	13	40	8.1	35
29...	1400	98	280	7.9	.5	2.2	16.4	100	8	32	5.8	23
FEB												
08...	1100	100	190	8.0	.0	2.9	12.0	77	8	24	4.1	11
MAR												
13...	1415	360	220	7.4	7.5	9.2	10.6	81	7	25	4.6	14
APR												
17...	1245	430	210	7.9	14.0	16	9.7	75	12	23	4.3	14
MAY												
28...	1300	2590	180	--	14.0	27	8.2	58	15	17	3.7	9.3
JUN												
26...	1400	1600	240	7.9	20.0	12	8.5	63	21	19	3.8	13
JUL												
24...	1210	260	286	8.4	23.0	8.4	8.3	83	16	25	4.9	20
AUG												
06...	1300	178	175	8.1	20.0	4.5	8.0	58	0	18	3.2	12
SEP												
09...	1145	18	445	8.3	15.0	15	11.4	140	27	41	8.4	41
DATE		SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY (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)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
NOV												
01...	1.3	5.5	120	72	8.6	.6	28	273	271	.11	.14	
29...	1.0	4.5	96	46	6.0	.5	34	224	212	.51	.48	
FEB												
08...	.5	2.9	69	29	3.9	.2	29	158	148	.46	.47	
MAR												
13...	.7	2.7	74	32	4.5	.3	26	169	155	.62	.28	
APR												
17...	.7	2.9	63	32	3.3	.2	28	157	146	.16	.18	
MAY												
28...	.5	2.4	43	24	3.4	.2	19	122	105	.05	.06	
JUN												
26...	.7	2.7	42	38	2.8	.2	22	144	127	.13	.02	
JUL												
24...	1.0	3.6	67	51	5.4	.5	22	190	173	.00	.03	
AUG												
06...	.7	2.9	59	23	3.1	.3	21	122	119	.00	.00	
SEP												
09...	1.5	5.7	110	99	10	.5	20	353	292	.00	.00	

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)	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- PENDE (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)
NOV											
01...	.050	.030	.79	.95	.090	40	8	--	17	.5	.00
29...	.120	.090	1.1	1.7	.100	--	--	7.9	--	--	--
FEB											
08...	.110	.130	.41	.98	.130	--	--	4.2	--	--	--
MAR											
13...	.120	.120	1.1	1.8	.140	80	7	--	2.4	1.6	.00
APR											
17...	.100	.040	.56	.82	.210	--	--	4.5	--	--	--
MAY											
28...	.030	.030	1.1	1.2	.190	--	--	7.8	--	--	--
JUN											
26...	.000	.010	.66	.79	.040	30	20	--	5.9	.6	.00
JUL											
24...	.010	.010	.96	.97	.160	--	--	5.9	--	--	--
AUG											
06...	.020	.000	1.5	1.5	.120	70	6	--	4.3	--	.00
SEP											
09...	.000	.000	.88	.88	.120	--	--	7.4	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
NOV										
01...	1315	3	4	100	40	0	<1	0	0	1
MAR										
13...	1415	2	3	0	30	1	<1	0	0	0
JUN										
26...	1400	2	3	0	30	0	<1	0	0	0
AUG										
06...	1300	2	3	100	30	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										
01...	<3	0	0	170	40	2	0	50	8	.1
MAR										
13...	<3	6	2	780	80	4	0	90	7	.0
JUN										
26...	<3	5	3	1100	30	7	8	100	20	.0
AUG										
06...	<3	4	1	500	70	2	1	60	6	.1

DATE	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	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										
01...	.1	--	3	0	0	0	0	0	20	9
MAR										
13...	.0	--	31	0	0	0	0	0	100	10
JUN										
26...	.1	--	0	5	0	0	0	0	30	5
AUG										
06...	.0	<10	3	0	0	0	0	0	20	7

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

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39368)
NOV											
01...	1315	--	ND	ND	ND	ND	ND	ND	ND	ND	ND
07...	1315	ND	--	--	--	--	--	--	--	--	--
FEB											
08...	1130	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	TIME	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39373)	DI- AZINON, TOTAL (UG/L) (39570)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39571)	DI- ELDRIN, TOTAL (UG/L) (39380)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39399)	HEPTA- CHLOR, TOTAL (UG/L) (39410)
NOV												
01...	ND	ND	--	ND	ND	ND	ND	ND	ND	--	ND	ND
07...	--	--	ND	--	--	--	--	--	--	ND	--	--
FEB												
08...	ND	--	ND	--	ND	--	ND	--	ND	--	ND	ND

DATE	TIME	HEPTA- CHLOR, TOTAL (UG/L) (39413)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39420)	HEPTA- CHLOR EPOXIDE TOT. IN BOT- TOM MA- TERIAL (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	MALA- THION, TOTAL (UG/L) (39530)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39531)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	METH- OXY- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39481)	METHYL THION, TOTAL (UG/L) (39600)	METHYL THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39601)
NOV												
01...	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	--	ND
07...	--	--	--	--	--	--	ND	--	--	--	ND	--
FEB												
08...	--	ND	--	ND	--	ND	--	ND	--	ND	--	--

DATE	TIME	METHYL THION, TOTAL (UG/L) (39790)	METHYL THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39791)	PARA- THION, TOTAL (UG/L) (39540)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39541)	TOX- APHENE, TOTAL (UG/L) (39400)	TOXA- PHENE, TOTAL (UG/L) (39403)	TRI- THION, TOTAL (UG/L) (39786)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39787)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)
NOV											
01...	--	ND	--	ND	ND	ND	ND	--	ND	--	--
07...	ND	--	ND	--	--	--	--	ND	--	ND	ND
FEB											
08...	ND	--	ND	--	ND	--	ND	--	--	--	--

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV			
01...	1315	K16	K10
29...	1400	74	35
FEB			
08...	1100	K18	K19
MAR			
13...	1415	<1	K5
APR			
17...	1245	K1	K23
MAY			
28...	1300	K36	140
JUN			
26...	1400	K31	K31
JUL			
24...	1210	K0	K120
AUG			
06...	1300	K4	K68
SEP			
09...	1145	80	120

ND MATERIAL SPECIFICALLY TESTED FOR BUT NOT DETECTED.

RIO GRANDE BASIN
08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 29,79		JUN 26,80		JUL 24,80		AUG 6,80		SEP 9,80	
TIME	1400		1400		1210		1300		1145	
TOTAL CELLS/ML	3300		1900		47000		16000		18000	
DIVERSITY: DIVISION	0.6		1.5		1.6		1.4		1.4	
..CLASS	0.6		1.5		1.6		1.6		1.4	
..ORDER	1.3		2.5		2.0		1.9		2.0	
....FAMILY	2.3		3.0		2.5		2.2		2.6	
....GENUS	2.5		3.3		2.8		2.5		3.0	
ORGANISM	CELLS	PER-	CELLS	PER-	CELLS	PER-	CELLS	PER-	CELLS	PER-
	/ML	CENT	/ML	CENT	/ML	CENT	/ML	CENT	/ML	CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	1600	3	--	-	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	--	-	--	-	2100	5	--	-	--	-
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	800	2	--	-	160	1
...MICRACTINIUM	--	-	--	-	2400	5	630	4	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	26	1	400	1	130	1	900	5
...CHODATELLA	--	-	13	1	--	-	--	-	--	-
...DICTYOSPHAERIUM	--	-	210	11	--	-	--	-	330	2
...OOCYSTIS	--	-	100	5	--	-	540	3	--	-
....SELENASTRUM	--	-	--	-	--	-	*	0	--	-
...TETRAEDRON	--	-	--	-	*	0	--	-	--	-
...TREUBARIA	--	-	--	-	--	-	*	0	--	-
...WESTELLA	--	-	--	-	--	-	180	1	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	1100	2	360	2	4200#	24
...SCENEDESMUS	120	4	77	4	800	2	360	2	820	5
...TETRASTRUM	--	-	--	-	2100	5	180	1	--	-
...VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	59	2	65	3	270	1	130	1	160	1
...CHLOROGONIUM	--	-	--	-	*	0	--	-	--	-
...PHACOTACEAE										
....PTEROMONAS	--	-	--	-	--	-	*	0	160	1
...VOLVOCAEAE										
....EUDORINA	--	-	210	11	--	-	--	-	--	-
...PANDORINA	--	-	--	-	--	-	720	4	--	-
CHRYSPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	530#	16	440#	23	7200#	15	490	3	4300#	24
...PENNALES										
...CYMBELLACEAE										
....CYMBELLA	--	-	13	1	--	-	--	-	--	-
....EPITHEMIA	--	-	--	-	--	-	*	0	160	1
...FRAGILARIACEAE										
....FRAGILARIA	88	3	280	15	--	-	--	-	4200#	23
....SYNEDRA	260	8	--	-	--	-	--	-	160	1
...GOMPHONEMACEAE										
....GOMPHONEMA	230	7	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....NAVICULA	210	6	--	-	--	-	--	-	*	0
...NITZSCHACEAE										
....NITZSCHIA	1600#	49	190	10	11000#	24	8200#	51	730	4
..CHRYSPHYCEAE										
...CHRYSONOMADALES										
...OCHROMONADACEAE										
....DINOBYRON	--	-	--	-	--	-	400	3	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
..CRYPTOPHYCEAE										
...CRYPTOMONADALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	--	-	--	-	--	-	*	0
...CRYPTOMONADACEAE										
....CRYPTOMONAS	29	1	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROOCOCCALES										
...CHROOCOCCACEAE										
....AGMENELLUM	--	-	--	-	16000#	34	3300#	21	980	5
....ANACYSTIS	--	-	130	7	530	1	--	-	410	2
...GOMPHOSPHAERIA	--	-	--	-	--	-	180	1	--	-
...HORMOGONALES										
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	130	7	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
....EUGLENAEAE										
....EUGLENA	59	2	--	-	--	-	--	-	--	-
....TRACHELOMONAS	88	3	13	1	--	-	--	-	*	0

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 1%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

RIO GRANDE BASIN
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 1979 TO SEPTEMBER 1980

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	520	492	500	449	370	409	264	254	259	212	207	209
2	529	489	500	386	363	374	265	242	255	214	211	213
3	536	492	501	394	348	371	264	255	260	212	208	209
4	509	499	502	345	285	318	260	248	253	208	203	205
5	510	500	507	279	255	267	254	245	249	203	196	199
6	519	508	513	259	250	253	252	241	246	198	193	196
7	521	505	514	283	250	267	240	223	232	196	192	194
8	524	513	518	298	269	285	221	206	212	194	189	191
9	535	524	529	300	289	293	216	204	210	190	185	187
10	543	531	535	292	287	290	212	202	208	186	181	183
11	546	536	539	292	275	282	206	196	201	182	181	181
12	538	524	532	278	265	272	199	191	196	182	181	181
13	528	517	523	274	259	268	200	191	195	182	180	181
14	533	522	528	286	258	270	202	195	199	182	180	181
15	538	531	534	293	269	281	199	194	197	181	180	180
16	538	525	531	305	276	292	200	192	197	---	---	---
17	532	524	528	302	277	291	204	197	201	---	---	---
18	533	529	531	299	276	289	205	200	203	---	---	---
19	548	535	542	294	271	281	207	202	204	---	---	---
20	553	546	550	283	245	270	207	202	204	---	---	---
21	545	510	525	297	259	279	209	201	204	---	---	---
22	513	500	505	291	265	277	206	199	203	186	180	183
23	---	506	---	331	216	281	204	198	201	194	185	188
24	---	577	---	348	307	328	206	199	203	195	189	192
25	573	503	548	346	331	339	208	204	206	199	192	196
26	500	441	470	350	318	332	208	203	205	200	193	196
27	437	420	427	322	294	310	210	204	207	197	190	194
28	433	422	428	322	299	309	208	203	206	195	189	192
29	432	425	429	310	272	289	206	201	203	190	184	187
30	434	427	430	295	257	273	207	201	203	184	181	182
31	444	432	437	---	---	---	205	164	200	183	180	181
MONTH	573	420	505	449	216	298	265	164	214	214	180	191
DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1	187	181	183	236	199	212	262	250	256	201	194	198
2	190	184	187	222	187	199	261	234	249	215	201	210
3	190	184	187	219	190	199	295	253	267	232	216	227
4	194	184	189	226	195	205	301	264	279	239	232	236
5	198	190	194	222	184	199	294	263	275	235	224	229
6	207	193	198	232	193	207	293	260	274	223	217	220
7	207	201	204	222	203	210	287	252	263	218	213	215
8	208	191	200	229	190	203	274	240	256	218	213	216
9	201	190	195	222	184	202	261	228	250	219	216	217
10	189	185	188	225	189	206	265	218	244	217	214	216
11	191	185	187	207	191	198	224	209	219	222	212	216
12	194	187	189	223	190	200	218	181	201	222	218	220
13	193	187	189	226	191	208	222	187	200	227	221	223
14	188	185	186	227	194	210	223	190	205	253	227	239
15	184	180	181	231	212	222	218	205	211	265	252	259
16	180	176	178	226	202	218	217	214	216	291	262	281
17	176	174	175	221	188	206	215	194	207	292	288	290
18	194	175	183	222	195	209	194	180	189	295	284	290
19	211	192	201	240	208	222	181	169	176	282	267	271
20	204	179	191	224	200	215	217	162	191	266	261	263
21	205	172	187	232	209	220	280	219	258	262	249	254
22	218	178	194	238	219	229	246	212	229	250	232	239
23	213	191	197	237	205	220	246	200	234	230	221	226
24	215	181	198	253	195	221	204	185	195	220	213	215
25	225	195	205	237	215	223	200	187	192	212	209	210
26	237	208	219	242	198	220	209	197	206	210	206	208
27	249	211	225	246	217	232	209	205	207	216	206	209
28	245	219	228	251	---	240	213	206	210	219	215	217
29	225	214	220	270	229	247	206	204	205	218	213	215
30	---	---	---	275	251	261	203	198	200	209	199	202
31	---	---	---	263	258	260	---	---	---	199	189	192
MONTH	249	172	195	275	184	217	301	162	225	295	189	230

RIO GRANDE BASIN
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 1979 TO SEPTEMBER 1980

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	190	187	188	196	189	192	197	173	185	---	---	---
2	187	184	185	203	193	198	171	156	163	---	---	---
3	187	180	183	216	204	209	156	147	151	---	---	---
4	183	177	180	206	202	204	160	152	156	---	---	---
5	175	167	169	207	196	202	181	158	171	---	---	---
6	168	165	166	212	197	204	193	174	180	---	---	---
7	161	158	159	228	214	222	211	192	205	---	---	---
8	160	156	157	241	229	235	191	151	168	---	---	---
9	158	152	155	243	231	236	153	140	147	408	396	401
10	156	153	154	232	227	230	142	132	137	434	400	410
11	160	152	155	235	226	230	143	137	140	430	398	415
12	176	161	167	253	233	243	145	139	143	452	410	427
13	174	167	170	259	254	257	154	147	150	442	207	285
14	192	175	182	258	254	256	162	148	154	276	215	249
15	193	176	183	262	252	258	151	138	142	214	203	207
16	197	181	187	279	259	270	159	144	153	233	211	220
17	202	190	195	281	276	279	194	162	176	266	236	248
18	209	197	201	277	272	274	227	199	214	311	269	289
19	207	198	202	294	272	280	235	231	---	360	317	334
20	205	192	199	321	294	308	---	---	---	391	342	368
21	196	188	192	339	296	318	---	---	---	425	381	401
22	203	194	199	296	279	290	---	---	---	455	420	438
23	211	198	203	281	268	275	---	---	---	479	457	468
24	209	199	204	289	276	285	---	---	---	510	480	495
25	214	199	206	284	276	280	---	---	---	534	503	517
26	214	190	202	272	200	231	---	---	---	539	512	532
27	208	188	197	202	189	196	---	---	---	555	517	536
28	197	180	188	202	193	198	---	---	---	544	510	530
29	192	183	187	197	188	191	---	---	---	539	503	525
30	191	186	189	187	179	183	---	---	---	553	527	537
31	---	---	---	194	183	185	---	---	---	---	---	---
MONTH	214	152	183	339	179	239	235	132	163	555	203	401
YEAR	573	132	255									

WATER TEMPERATURE (DEG.°C), RECORDER MAXIMUM, AND MEAN, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	21.5	10.5	15.0	7.5	1.0	3.0	.0	.0	.0	.0	.0	.0
2	21.5	10.5	15.5	6.5	.5	2.5	.0	.0	.0	.0	.0	.0
3	22.0	11.0	15.5	6.5	.0	2.5	.5	.0	.0	.0	.0	.0
4	20.0	9.5	14.5	5.5	.5	2.5	.0	.0	.0	.0	.0	.0
5	20.5	9.5	14.0	7.0	.0	2.5	.0	.0	.0	.0	.0	.0
6	20.5	9.0	14.0	7.5	.5	3.0	.0	.0	.0	.0	.0	.0
7	20.5	9.5	14.5	8.0	2.0	4.5	.0	.0	.0	.0	.0	.0
8	20.0	9.5	14.0	7.0	3.5	4.5	.0	.0	.0	.0	.0	.0
9	17.0	10.0	12.5	8.5	2.5	5.0	.0	.0	.0	.0	.0	.0
10	18.5	7.0	12.5	9.0	2.0	5.0	.0	.0	.0	.0	.0	.0
11	19.0	8.5	13.0	6.5	1.0	3.0	.0	.0	.0	.0	.0	.0
12	19.0	9.0	13.5	6.0	.0	2.0	.0	.0	.0	.0	.0	.0
13	17.0	9.5	12.5	5.5	.0	1.5	.0	.0	.0	.0	.0	.0
14	17.0	8.5	12.0	4.0	.0	1.0	.0	.0	.0	.0	.0	.0
15	18.5	7.5	12.5	3.0	.0	1.0	.0	.0	.0	.0	.0	.0
16	18.5	7.5	12.0	3.0	.0	1.0	.0	.0	.0	.0	.0	.0
17	15.0	7.0	11.0	2.5	.0	.5	.0	.0	.0	.0	.0	.0
18	15.0	8.5	11.0	3.5	.0	1.0	.0	.0	.0	.0	.0	.0
19	14.0	7.0	10.5	2.0	.0	.5	.0	.0	.0	.0	.0	.0
20	13.5	8.5	10.5	2.0	.0	.5	.0	.0	.0	.0	.0	.0
21	10.5	5.5	8.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
22	13.0	2.5	7.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
23	14.0	3.5	8.5	1.0	.0	.0	.0	.0	.0	.0	.0	.0
24	15.0	5.0	10.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
25	15.5	6.5	10.5	1.0	.0	.5	.0	.0	.0	.0	.0	.0
26	14.0	6.5	10.0	1.5	.0	.5	.0	.0	.0	.0	.0	.0
27	14.0	5.5	9.5	.5	.0	.0	.0	.0	.0	.0	.0	.0
28	13.0	5.5	8.5	.5	.0	.0	.0	.0	.0	.0	.0	.0
29	9.0	4.5	6.5	.5	.0	.0	.0	.0	.0	.0	.0	.0
30	4.0	1.0	2.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
31	7.5	1.0	3.5	---	---	---	.0	.0	.0	.0	.0	.0
MONTH	22.0	1.0	11.0	9.0	.0	1.5	.5	.0	.0	.0	.0	.0

WATER TEMPERATURE (DEG.°C), RECORDER MAXIMUM, AND MEAN, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1	.0	.0	.0	7.0	.0	3.0	8.5	.5	4.0	11.0	7.5	9.0
2	.0	.0	.0	6.0	.0	3.0	8.0	2.0	5.0	12.0	7.5	10.0
3	.0	.0	.0	5.5	1.0	3.0	11.0	2.5	6.5	14.5	9.5	12.0
4	.0	.0	.0	6.5	.5	3.5	12.5	5.0	8.5	17.0	11.5	14.0
5	.0	.0	.0	6.0	.0	3.5	12.0	7.0	9.5	17.0	13.0	14.5
6	.0	.0	.0	7.5	1.5	4.5	13.0	7.0	9.5	15.0	12.0	13.5
7	.0	.0	.0	6.0	1.5	3.5	10.5	6.0	8.5	15.5	12.0	13.5
8	.0	.0	.0	7.0	.5	3.5	12.0	4.0	8.0	14.0	11.5	13.0
9	.0	.0	.0	8.5	1.5	4.5	12.0	6.0	9.0	14.0	11.0	12.5
10	.0	.0	.0	9.0	1.5	5.0	13.0	6.5	9.5	13.5	10.0	12.0
11	.0	.0	.0	5.0	3.0	4.0	8.5	3.5	7.0	13.0	10.5	11.5
12	.0	.0	.0	6.5	1.5	3.5	8.0	1.0	4.0	12.0	8.5	10.0
13	.0	.0	.0	7.5	.0	3.5	8.5	1.5	5.0	12.0	8.0	10.5
14	.0	.0	.0	9.5	2.0	5.5	12.5	3.5	8.0	13.5	11.0	12.0
15	.0	.0	.0	9.0	4.0	6.0	14.0	7.0	11.0	11.5	9.5	10.5
16	.0	.0	.0	7.0	2.0	4.5	14.5	9.0	11.5	11.5	8.5	10.0
17	.0	.0	.0	7.5	.0	3.5	15.0	8.0	11.5	13.5	10.0	12.0
18	2.5	.0	1.0	8.5	1.5	5.0	16.0	9.0	12.5	15.0	10.5	13.0
19	5.5	2.0	3.5	9.0	3.5	6.0	17.5	10.0	13.5	17.5	12.0	14.5
20	3.5	.5	2.0	10.5	2.5	6.0	15.5	11.5	13.5	19.0	13.5	16.5
21	3.5	.0	1.5	10.5	4.0	6.5	14.5	10.5	12.5	19.5	14.0	17.0
22	6.5	.0	2.5	8.0	4.5	5.5	14.5	11.0	13.0	20.0	15.5	17.5
23	4.5	.0	2.0	7.0	2.5	4.5	12.5	10.0	11.0	18.0	14.5	16.0
24	5.0	.0	2.0	8.0	1.0	4.5	10.0	5.5	7.5	16.0	12.5	14.5
25	6.0	.0	2.0	6.0	2.5	4.5	9.0	4.5	6.5	13.5	10.0	12.0
26	7.0	.0	3.0	8.0	2.0	5.0	8.5	5.5	7.0	14.0	10.5	12.5
27	8.0	1.0	4.5	8.5	4.5	6.0	12.0	6.5	9.0	14.5	11.5	13.0
28	8.0	2.0	4.5	7.5	---	5.5	13.5	8.5	11.5	15.5	---	14.0
29	6.0	2.0	3.5	9.0	3.5	6.5	14.0	11.0	12.5	15.5	12.0	13.5
30	---	---	---	9.5	3.5	6.5	13.0	9.0	11.0	16.0	11.5	13.5
31	---	---	---	6.5	2.5	5.0	---	---	---	16.0	12.5	14.0
MONTH	8.0	.0	1.0	10.5	.0	4.5	17.5	.5	9.0	20.0	7.5	13.0
DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	14.5	12.0	13.5	21.5	17.5	20.0	23.0	16.5	19.5	---	---	---
2	15.5	11.5	13.5	22.5	18.5	20.0	21.5	15.5	18.0	---	---	---
3	17.0	12.0	14.5	23.0	18.5	20.5	19.0	13.0	15.5	---	---	---
4	17.5	13.0	15.5	22.0	18.5	20.0	20.5	12.0	16.0	---	---	---
5	18.0	13.5	16.0	23.0	17.5	20.5	17.5	12.0	14.5	---	---	---
6	17.0	13.5	15.0	22.5	19.0	20.5	20.5	10.5	15.0	---	---	---
7	17.0	9.5	15.0	22.5	18.0	20.5	21.0	13.0	16.5	---	---	---
8	18.5	14.5	16.5	23.5	18.0	20.5	20.5	14.0	16.5	---	---	---
9	20.0	15.0	17.5	24.0	19.5	22.0	21.5	14.0	17.5	16.0	13.0	14.5
10	19.0	16.0	18.0	25.5	20.5	22.5	22.5	15.0	18.0	19.5	12.5	15.0
11	19.0	15.5	17.5	25.5	20.0	22.5	22.5	15.5	18.0	20.5	11.5	15.0
12	20.0	15.5	18.0	25.5	21.0	23.0	21.5	14.5	17.5	21.0	10.0	15.0
13	19.5	16.0	18.0	22.0	19.5	21.0	23.0	14.5	18.0	20.0	12.0	15.5
14	19.0	15.5	17.0	25.5	20.0	22.5	23.0	17.5	19.5	24.0	13.5	18.0
15	18.5	13.5	16.5	26.5	19.5	23.0	21.5	16.0	18.5	25.0	13.0	18.0
16	19.5	14.0	17.0	27.5	20.0	23.5	23.0	14.0	18.0	21.5	12.5	16.5
17	20.5	15.5	18.0	27.0	21.0	24.0	23.5	13.5	18.0	24.5	10.0	16.5
18	20.0	15.5	18.0	26.0	20.5	23.0	23.0	14.5	18.0	24.5	10.0	16.0
19	19.0	15.5	17.5	25.5	19.0	21.5	17.0	15.5	16.0	21.5	10.5	15.0
20	20.0	14.5	17.5	27.5	18.0	22.5	---	---	---	19.5	9.5	13.5
21	20.0	15.5	18.0	27.5	20.0	22.5	---	---	---	17.0	9.0	12.0
22	20.5	16.0	18.0	26.0	19.0	22.0	---	---	---	17.0	6.5	11.0
23	20.5	15.5	18.0	27.5	20.0	23.5	---	---	---	19.5	7.5	12.0
24	21.0	16.5	19.0	26.0	19.5	22.0	---	---	---	21.0	7.0	13.0
25	21.0	16.5	19.0	25.5	17.0	21.0	---	---	---	20.5	7.5	13.0
26	21.0	17.5	19.0	24.0	17.5	20.5	---	---	---	21.0	10.0	14.0
27	21.5	17.0	19.5	24.5	17.0	20.5	---	---	---	22.0	10.0	15.5
28	22.5	16.5	19.5	24.0	16.5	20.5	---	---	---	22.5	11.0	15.5
29	22.5	18.0	20.5	23.0	16.0	19.5	---	---	---	22.0	10.5	15.5
30	22.5	18.5	20.5	24.0	16.5	20.0	---	---	---	22.5	9.0	14.5
31	---	---	---	25.5	17.5	21.0	---	---	---	---	---	---
MONTH	22.5	9.5	17.5	27.5	16.0	21.5	23.5	10.5	17.5	25.0	6.5	15.0
YEAR	27.5	.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 mi² (20,440 km²), approximately, including 2,940 mi² (7,610 km²) 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.--27 years, 351 ft³/s (9.940 m³/s), 254,300 acre-ft/yr (314 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 5,000 ft³/s (142 m³/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 ft³/s (371 m³/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, 3,090 ft³/s (87.5 m³/s) June 13, gage height, 6.32 ft (1.926 m); minimum daily, 16 ft³/s (0.45 m³/s) Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	72	105	195	295	418	391	1600	2880	1310	243	33
2	42	72	110	200	290	414	388	1690	2810	1260	252	27
3	42	99	120	210	290	398	385	1590	2680	1310	252	23
4	42	125	120	220	295	411	388	1390	2630	1330	228	22
5	42	138	130	230	300	414	378	1490	2660	1300	198	20
6	41	125	140	240	300	398	375	1610	2760	1190	172	18
7	41	118	150	250	300	394	388	1750	2910	962	201	16
8	41	122	160	255	235	401	408	1950	2940	962	298	18
9	40	135	165	260	280	391	414	2140	2900	986	324	21
10	38	138	165	260	295	378	404	2320	2860	938	327	21
11	38	149	170	260	295	375	398	2340	2940	870	324	22
12	36	132	175	265	295	375	404	2250	3040	730	320	24
13	36	128	170	280	300	365	435	2260	3030	631	292	136
14	36	120	165	295	315	365	428	1950	2620	571	271	163
15	38	115	165	305	325	359	408	1800	2230	531	258	97
16	38	120	170	310	335	372	401	1940	2060	480	186	55
17	38	120	175	320	350	381	431	1870	1910	435	118	36
18	40	135	175	325	380	385	498	1640	1830	404	90	28
19	40	138	170	320	405	372	547	1600	1780	333	76	20
20	40	125	175	320	440	368	720	1760	1800	286	66	17
21	42	103	180	320	431	368	910	1960	1890	286	55	16
22	55	82	185	295	425	372	1120	2200	1800	283	48	18
23	54	74	190	265	401	391	1310	2500	1630	295	50	21
24	54	70	180	265	394	401	1380	2750	1520	261	52	25
25	84	80	180	270	375	414	1530	2920	1480	249	54	23
26	82	95	185	285	375	404	1330	2930	1480	320	61	21
27	84	115	190	290	388	408	1240	2700	1470	340	125	22
28	80	100	190	290	411	411	1190	2460	1520	305	130	23
29	78	100	190	295	425	411	1240	2480	1480	280	88	23
30	78	100	195	300	---	398	1380	2570	1390	283	64	23
31	76	---	190	305	---	388	---	2780	---	246	44	---
TOTAL	1558	3345	5130	8500	9945	12100	21219	65190	66930	19967	5267	1032
MEAN	50.3	112	165	274	343	390	707	2103	2231	644	170	34.4
MAX	84	149	195	325	440	418	1530	2930	3040	1330	327	163
MIN	36	70	105	195	235	359	375	1390	1390	246	44	16
AC-FT	3090	6630	10180	16860	19730	24000	42090	129300	132800	39600	10450	2050

CAL YR 1979 TOTAL 313161 MEAN 858 MAX 4860 MIN 36 AC-FT 621200
WIR YR 1980 TOTAL 220183 MEAN 602 MAX 3040 MIN 16 AC-FT 436700

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 mi² (65.0 km²).

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

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 km²) 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 ft³/s (110 m³/s) July 22, 1954, gage height, about 4.8 ft (1.46 m), from floodmarks, site and datum then 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.--Peak discharges above base of 40 ft³/s (1.1 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
May 10	1730	57	1.61	2.83	0.863	June 10	0030	*62	1.76	2.87	0.875
May 23	2030	60	1.70	2.86	.872						

Minimum discharge not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6						---	8.4	38	12	4.1	2.4
2	2.5						---	8.1	37	11	4.2	2.4
3	2.4						---	13	36	9.6	3.9	2.3
4	2.4						---	18	38	8.7	3.4	2.3
5	2.4						---	20	40	8.4	3.4	2.5
6	2.4						---	25	41	8.0	4.2	3.0
7	2.4						---	28	39	8.0	4.1	3.2
8	2.3						---	31	41	7.5	6.1	3.3
9	2.3						---	31	53	7.0	7.9	4.2
10	2.3						---	34	56	8.0	3.8	4.9
11	---						---	31	51	7.5	3.4	3.4
12	---						---	26	49	7.0	3.5	2.9
13	---						---	22	44	6.5	3.8	2.8
14	---						---	21	39	6.0	3.9	2.8
15	---						---	24	36	5.6	3.7	2.7
16	---						---	24	31	5.6	3.2	2.5
17	---						---	28	29	5.2	3.1	2.5
18	---						---	22	29	5.4	3.0	2.4
19	---						---	25	27	6.0	2.9	2.4
20	---						---	31	24	5.8	2.6	2.2
21	---						---	39	22	5.4	2.6	2.1
22	---						---	44	20	5.6	2.6	2.3
23	---						---	46	18	5.1	2.6	2.4
24	---						---	47	16	5.3	2.7	2.3
25	---						---	43	16	5.6	3.3	2.4
26	---						---	39	15	4.5	2.9	2.6
27	---						---	39	14	4.1	2.9	2.8
28	---						---	41	13	4.1	2.7	2.7
29	---						---	11	41	12	4.1	2.5
30	---						---	11	39	11	4.5	2.4
31	---						---	39	---	5.2	2.4	---
TOTAL	---	---	---	---	---	---	---	927.5	935	202.3	108.0	81.6
MEAN	---	---	---	---	---	---	---	29.9	31.2	6.53	3.48	2.72
MAX	---	---	---	---	---	---	---	47	56	12	7.9	4.9
MIN	---	---	---	---	---	---	---	8.1	11	4.1	2.4	2.1
AC-FT	---	---	---	---	---	---	---	1840	1850	401	214	162

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 mi² (43.0 km²).

PERIOD OF RECORD.--April 1937 to current year (no winter records). Monthly discharge only for some periods, published in WSP 1312 and 1732. 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 km²), 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 ft³/s (5.13 m³/s) July 20, 1971, gage height, 2.07 ft (0.631 m), from rating curve extended above 85 ft³/s (2.4 m³/s); minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 73 ft³/s (2.07 m³/s) at 0645 hours June 12, gage height, 1.43 ft (0.436 m), no other peak above base of 35 ft³/s (1.0 m³/s); minimum not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4							5.5	32	36	12	6.0
2	5.0							5.0	32	36	12	5.8
3	5.0							6.0	33	36	11	5.5
4	5.0							8.0	35	35	10	5.2
5	5.0							10	38	34	11	5.4
6	5.0							12	40	32	13	5.8
7	5.0							14	39	32	12	5.7
8	5.0							15	41	28	13	5.9
9	5.0							14	51	26	14	7.0
10	5.0							14	57	29	10	8.4
11	---							13	62	25	10	6.3
12	---							13	69	22	11	5.8
13	---							12	66	21	10	5.4
14	---							13	64	20	10	5.4
15	---							16	62	19	9.9	5.0
16	---							17	58	19	8.7	4.7
17	---							16	55	18	8.4	4.5
18	---							13	55	18	7.9	4.5
19	---							13	55	18	7.7	4.5
20	---							15	55	17	7.1	4.2
21	---							17	52	17	7.0	4.2
22	---							22	49	16	6.8	4.2
23	---							25	47	15	6.5	4.5
24	---							27	45	16	6.9	4.2
25	---							29	44	15	7.0	4.2
26	---							27	43	13	6.8	4.4
27	---							28	40	13	6.8	4.4
28	---							29	40	12	6.3	4.3
29	---							30	39	12	6.4	4.1
30	---							31	37	12	6.5	4.0
31	---							31	---	15	6.3	---
TOTAL	---	---	---	---	---	---	---	540.5	1435	677	282.0	153.5
MEAN	---	---	---	---	---	---	---	17.4	47.8	21.8	9.10	5.12
MAX	---	---	---	---	---	---	---	31	69	36	14	8.4
MIN	---	---	---	---	---	---	---	5.0	32	12	6.3	4.0
AC-FT	---	---	---	---	---	---	---	1070	2850	1340	559	304

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 mi² (5.57 km²).

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

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 ft³/s (0.51 m³/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, 10 ft³/s (0.28 m³/s) at 2030 hours June 14, gage height, 1.03 ft (0.314 m), no other peak above base of 6 ft³/s (0.2 m³/s); minimum not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2						---	1.2	5.9	7.0	2.6	1.5
2	1.2						---	1.2	6.0	6.8	2.5	1.5
3	1.2						---	1.4	6.3	6.5	2.5	1.4
4	1.2						---	1.5	6.6	6.2	2.3	1.4
5	1.1						---	1.6	6.9	6.0	2.3	1.4
6	1.1						---	1.9	7.2	5.8	2.5	1.4
7	1.1						---	1.7	7.4	5.7	2.4	1.4
8	1.0						.56	1.6	7.7	5.5	2.5	1.4
9	1.0						.51	1.7	8.2	5.3	2.4	1.6
10	1.0						.61	1.7	8.7	5.6	2.2	1.8
11	---						.53	1.8	9.2	5.2	2.2	1.4
12	---						.48	1.8	9.5	4.9	2.2	1.3
13	---						.55	1.8	9.7	4.8	2.1	1.3
14	---						.61	1.9	9.9	4.5	2.1	1.2
15	---						.67	2.0	9.8	4.2	2.1	1.2
16	---						.71	1.9	9.6	4.1	1.9	1.2
17	---						.75	1.9	9.4	4.0	1.9	1.2
18	---						.85	1.8	9.2	3.9	1.8	1.2
19	---						.95	2.0	9.1	3.8	1.8	1.1
20	---						.97	2.4	9.0	3.6	1.7	1.1
21	---						1.1	2.8	8.9	3.6	1.7	1.1
22	---						1.5	3.3	8.6	3.5	1.7	1.1
23	---						1.4	4.3	8.1	3.4	1.6	1.0
24	---						.78	4.8	7.9	3.5	1.7	1.0
25	---						.73	4.9	7.7	3.2	1.7	1.1
26	---						.94	4.9	7.6	3.0	1.6	1.1
27	---						1.2	4.7	7.6	2.9	1.6	1.1
28	---						1.3	4.8	7.5	2.8	1.6	1.1
29	---						1.3	5.0	7.3	2.7	1.5	1.0
30	---						1.3	5.3	7.1	2.7	1.6	.95
31	---						---	5.6	---	2.8	1.5	---
TOTAL	---	---	---	---	---	---	---	85.2	243.6	137.5	61.8	37.55
MEAN	---	---	---	---	---	---	---	2.75	8.12	4.44	1.99	1.25
MAX	---	---	---	---	---	---	---	5.6	9.9	7.0	2.6	1.8
MIN	---	---	---	---	---	---	---	1.2	5.9	2.7	1.5	.95
AC-FT	---	---	---	---	---	---	---	169	483	273	123	74

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 mi² (141.4 km²).

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

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 hm³) between gage heights 9,405.0 ft (2,866.64 m), sill of outlet, and 9,513.0 ft (2,899.56 m), crest of ungated spillway cut in natural rock. No dead storage. By order of New Mexico State Engineer storage is limited to 14,540 acre-ft (17.9 hm³) maximum, and 10,880 acre-ft (13.4 hm³) for not to exceed 60 days. Diversions for irrigation of about 1,300 acres (5.26 km²) above Reservoir. 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 hm³) 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, 13,390 acre-ft (16.5 hm³) June 23, gage height, 9,507.0 ft (2,897.73 m); minimum observed, 4,070 acre-ft (5.02 hm³) Sept. 12, 15, gage height, 9,474.3 ft (2,887.77).

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

9,470	3,260
9,480	5,270
9,490	7,790
9,510	14,540

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	9990	11990	12720	8220	4980
2	---	---	---	---	---	---	---	9960	12070	12570	8220	4870
3	---	---	---	---	---	---	---	9930	12140	12430	8220	4720
4	---	---	---	---	---	9020	---	---	12240	12280	8100	4600
5	---	---	---	---	---	---	---	9930	12320	12240	7910	4470
6	---	---	---	---	---	---	---	9990	12430	12240	7680	---
7	---	---	---	---	---	---	---	10020	12500	12100	7490	4470
8	---	---	---	---	---	---	9580	10060	12640	11920	7300	4410
9	---	---	---	---	---	---	9580	10060	12760	11710	7330	4310
10	6770	---	---	---	---	---	9610	10060	12830	11540	7350	4210
11	---	---	---	---	---	---	9640	10060	13010	11330	7240	4110
12	---	---	7850	---	---	---	9670	10060	13120	11290	7140	4070
13	---	---	---	---	---	---	---	10020	13200	11290	6980	---
14	---	---	---	---	---	---	9700	10020	13240	11190	6820	---
15	---	---	---	---	---	---	9730	10020	13280	10980	6670	4070
16	---	---	---	---	---	---	9770	10090	13310	10750	6670	4090
17	---	---	---	---	---	---	0	10180	13310	10510	6670	4110
18	---	---	---	---	---	---	9860	10280	13310	10280	6560	4130
19	---	---	---	---	---	---	9930	10410	13310	---	6410	4150
20	---	---	---	---	---	---	---	10510	13280	10280	6260	---
21	---	---	---	---	---	---	10060	10610	13310	10180	6070	---
22	---	---	---	---	---	---	10090	10780	13350	9930	5880	4210
23	---	---	---	---	---	---	10090	10880	13390	9730	---	4210
24	---	---	---	---	---	---	10090	11050	13240	9450	5880	4230
25	---	---	---	---	---	---	---	11220	13200	9230	5780	4230
26	---	---	---	---	---	---	10120	11400	13050	9260	5640	4250
27	---	---	---	---	---	---	---	11540	12980	9260	5500	---
28	---	---	---	---	---	---	10020	11570	12980	9110	---	---
29	---	---	---	---	9000	---	10020	11710	12980	8900	5160	4290
30	---	7700	---	---	---	---	9990	11780	12900	8600	---	4330
31	7200	---	8100	8550	---	9450	---	11890	---	8390	5160	---
MAX	---	---	---	---	---	---	---	---	13390	---	---	---
MIN	---	---	---	---	---	---	---	---	11990	---	---	---
(†)	---	---	---	---	---	---	9497.3	9502.9	9505.7	9492.1	9479.5	9475.6
(‡)	+600	+500	+400	+450	+450	+450	+540	+1900	+1010	-4510	-3230	-830

CAL YR 1979..... † +6400

WTR YR 1980..... † -2270

† 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.

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 mi² (141.4 km²).

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

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 ft³/s (0.03 m³/s), which are poor. Flow regulated by Costilla

Reservoir (station 08253900). Diversions for irrigation of about 1,300 acres (5.3 km²) above Reservoir.

Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--34 years (water years 1945-47, 1950-80), 16.6 ft³/s (0.470 m³/s), 12,030 acre-ft/yr (14.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 301 ft³/s (8.52 m³/s) June 19, 1979, gage height, 3.04 ft

(0.927 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 152 ft³/s (4.30 m³/s) July 7, 8, gage height, 2.28 ft (0.695 m);

minimum not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.03	.04	.04	.05	.06	.06	38	38	132	67	93
2	.04	.03	.04	.04	.05	.06	.06	38	38	131	20	91
3	.04	.03	.04	.04	.05	.06	.06	38	38	131	43	80
4	.04	.03	.04	.04	.05	.06	.06	38	39	84	123	73
5	.04	.03	.04	.04	.05	.06	.06	38	39	52	123	31
6	.04	.03	.04	.04	.05	.06	.07	38	39	73	123	7.2
7	.04	.03	.04	.04	.05	.06	.08	43	39	137	122	28
8	.04	.03	.04	.04	.05	.06	.08	50	43	151	54	60
9	.04	.03	.04	.04	.05	.06	.08	50	57	150	14	59
10	.04	.03	.04	.04	.05	.06	.10	50	58	150	34	59
11	.04	.03	.04	.04	.05	.06	.11	50	58	86	100	38
12	.03	.03	.04	.04	.05	.06	.09	50	67	38	100	16
13	.03	.03	.04	.04	.05	.06	.09	50	88	58	99	10
14	.03	.03	.04	.04	.05	.06	.09	50	94	137	99	10
15	.03	.03	.04	.04	.05	.06	.10	28	94	143	45	3.9
16	.03	.03	.04	.04	.05	.06	.10	.90	94	142	16	.07
17	.02	.03	.04	.04	.05	.06	.10	.87	90	142	36	.07
18	.02	.03	.04	.04	.05	.06	.10	.85	95	77	97	.05
19	.02	.03	.04	.04	.05	.06	.10	.83	95	26	96	.05
20	.02	.03	.04	.04	.05	.06	.10	.83	86	52	96	.05
21	.02	.03	.04	.04	.05	.06	17	.83	71	143	96	.05
22	.02	.03	.04	.04	.05	.06	25	.86	78	143	38	.05
23	.02	.03	.04	.04	.05	.06	25	.84	100	142	8.7	.05
24	.03	.03	.04	.04	.05	.06	25	.83	100	142	33	.07
25	.03	.03	.04	.04	.05	.06	25	.83	108	67	83	.07
26	.03	.03	.04	.04	.05	.06	34	.83	116	26	95	.07
27	.03	.03	.04	.04	.05	.06	38	23	84	51	103	.07
28	.03	.03	.04	.04	.05	.06	38	38	62	137	102	.07
29	.03	.03	.04	.04	.05	.06	38	38	77	136	44	.07
30	.03	.03	.04	.04	---	.06	38	38	133	136	9.7	.07
31	.03	---	.04	.04	---	.06	---	38	---	135	33	---
TOTAL	.97	.90	1.24	1.24	1.45	1.86	104.69	833.30	2218	3345	2152.4	660.03
MEAN	.031	.030	.040	.040	.050	.060	10.2	26.9	73.9	108	69.4	22.0
MAY	.04	.03	.04	.04	.05	.06	38	50	133	151	123	93
MIN	.02	.03	.04	.04	.05	.06	.06	.83	38	26	8.7	.05
AC-FT	1.9	1.8	2.5	2.5	2.9	3.7	604	1650	4400	6630	4270	1310

CAL-YR 1979 TOTAL 8242.99 MEAN 22.6 MAX 144 MIN .02 AC-FT 16350
WTR YR 1980 TOTAL 9521.08 MEAN 26.0 MAX 151 MIN .02 AC-FT 18890

NOTE.--No gage-height record Nov. 21 to Apr. 7.

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 mi² (394 km²).

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 km²) above Costilla Reservoir. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharges, 689 ft³/s (19.5 m³/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, 194 ft³/s (5.49 m³/s) May 6, 8, gage height, 2.39 ft (0.728 m); minimum discharge not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0						---	90	164	150	97	90
2	8.5						---	89	155	149	37	92
3	8.5						---	103	146	148	40	84
4	8.0						---	119	144	119	122	75
5	8.0						---	135	143	78	122	53
6	8.0						---	159	139	84	122	19
7	7.5						---	154	137	142	122	25
8	7.5						---	175	136	157	82	65
9	7.5						---	167	147	156	34	66
10	7.5						---	164	157	157	33	69
11	7.5						---	166	158	121	103	54
12	---						---	158	154	63	105	31
13	---						---	155	161	64	105	20
14	---						---	151	161	142	105	19
15	---						---	155	158	149	74	17
16	---						---	118	156	148	30	11
17	---						---	110	147	145	30	8.1
18	---						---	101	146	104	96	7.1
19	---						---	104	140	48	96	6.6
20	---						---	118	132	50	96	6.0
21	---						---	140	111	141	97	5.4
22	---						---	161	110	143	63	5.1
23	---						95	177	133	143	21	5.4
24	---						75	179	132	142	27	5.8
25	---						60	177	136	98	84	5.8
26	---						63	168	142	43	93	6.1
27	---						72	162	120	45	102	6.7
28	---						89	176	93	137	100	7.3
29	---						96	171	95	139	70	6.8
30	---						93	168	150	138	21	6.3
31	---						---	167	---	140	24	---
TOTAL	---	---	---	---	---	---	---	4537	4203	3683	2353	878.5
MEAN	---	---	---	---	---	---	---	146	140	119	75.9	29.3
MAX	---	---	---	---	---	---	---	179	164	157	122	92
MIN	---	---	---	---	---	---	---	89	93	43	21	5.1
AC-F'T	---	---	---	---	---	---	---	9000	8340	7310	4670	1740

RIO GRANDE BASIN

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 mi² (505 km²).

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 km²) above station.

AVERAGE DISCHARGE.--39 years (water years 1942-80), 41.6 ft³/s (1.178 m³/s), 30,140 acre-ft/yr (37.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,150 ft³/s (32.6 m³/s) May 11, 1942, gage height, 5.37 ft (1.637 m), site and datum then in use; minimum, 0.34 ft³/s (0.010 m³/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, 222 ft³/s (6.29 m³/s) May 23, gage height, 3.42 ft (1.042 m); minimum, 1.8 ft³/s (0.051 m³/s) Feb. 24, result of freeze up.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	11	10	11	11	15	11	98	172	157	123	81
2	13	10	10	11	11	14	15	94	163	157	42	97
3	11	9.5	13	9.0	12	15	15	101	155	154	39	93
4	10	11	15	9.0	12	15	15	121	151	134	108	81
5	10	11	17	10	12	14	17	140	149	76	126	72
6	9.9	10	15	11	12	14	19	169	145	72	129	25
7	9.4	12	15	12	12	14	17	161	140	134	129	22
8	9.3	13	16	12	11	11	13	194	140	166	111	64
9	9.0	13	16	12	10	12	16	190	169	172	46	71
10	8.9	13	17	12	9.0	12	19	185	183	176	34	78
11	8.5	11	17	12	9.0	14	25	187	196	155	88	67
12	8.0	11	17	12	9.5	11	19	174	175	69	104	41
13	7.9	10	16	13	9.5	11	18	160	188	62	106	25
14	8.2	11	15	13	9.5	13	17	161	187	131	108	22
15	8.3	11	17	14	9.5	14	20	176	184	158	93	21
16	8.2	11	14	12	9.5	13	27	134	178	159	34	14
17	8.1	11	14	12	9.7	12	35	126	167	160	29	10
18	11	12	14	13	10	13	47	109	158	132	86	9.3
19	11	13	14	13	11	14	64	105	159	54	100	8.2
20	9.5	12	14	13	11	12	89	120	153	48	100	7.4
21	13	9.5	15	12	9.1	13	83	143	125	134	102	6.9
22	14	9.0	16	11	10	14	115	172	119	158	83	6.4
23	13	8.5	17	10	9.3	13	120	202	136	159	26	6.6
24	14	10	14	11	9.4	13	95	212	136	161	21	6.6
25	13	12	14	12	11	16	69	206	138	130	79	6.5
26	13	16	15	12	14	12	71	188	152	48	93	6.8
27	12	15	16	12	14	14	78	180	138	44	108	7.7
28	11	10	16	12	15	13	90	196	95	123	109	8.2
29	11	9.0	10	12	15	12	105	191	91	142	91	8.1
30	11	9.0	10	12	---	13	104	183	148	143	78	7.2
31	10	---	10	11	---	12	---	175	---	147	22	---
TOTAL	325.2	333.5	449	363.0	317.0	408	1448	4953	4590	3915	2497	979.9
MEAN	10.5	11.1	14.5	11.7	10.9	13.2	48.3	160	153	126	80.5	32.7
MAX	14	16	17	14	15	16	120	212	196	176	129	97
MIN	7.9	9.0	10	9.0	9.0	11	11	94	91	44	21	6.4
AC-FT	645	661	891	720	629	809	2870	9820	9100	7770	4950	1940

CAL YR 1979 TOTAL 28703.5 MEAN 78.6 MAX 482 MIN 5.0 AC-FT 56930
WTR YR 1980 TOTAL 20578.5 MEAN 56.2 MAX 212 MIN 6.4 AC-FT 40820

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 mi² (510 km²).

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

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

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 km²), 3,000 acres (12 km²) of which are below station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 540 ft³/s (15.3 m³/s) June 9, 1979, gage height, 4.66 ft (1.420 m), from rating curve extended above 220 ft³/s (6.2 m³/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 ft³/s (28 m³/s), based on records for upstream station (station 08255500).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 264 ft³/s (7.48 m³/s) June 15, gage height, 4.01 ft (1.222 m); maximum gage height, 4.54 ft (1.384 m) Aug. 1; minimum not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2						---	54	96	14	16	1.7
2	7.8						---	52	64	14	15	1.6
3	7.5						---	53	32	13	14	1.6
4	7.5						---	62	22	11	9.6	1.7
5	2.9						---	87	22	8.2	1.9	1.5
6	.05						---	128	21	24	2.6	1.3
7	.06						---	133	20	13	2.1	1.4
8	1.6						---	124	20	14	9.3	1.6
9	4.7						---	145	19	19	3.1	1.7
10	1.1						.94	160	23	19	2.6	1.8
11	3.6						.57	163	48	17	1.8	1.8
12	7.7						.31	148	32	12	.93	1.7
13	---						3.1	122	37	13	.83	8.9
14	---						.57	109	43	20	.74	15
15	---						1.6	128	62	15	7.5	7.6
16	---						3.4	104	34	14	5.4	.20
17	---						2.1	79	24	14	5.0	.17
18	---						16	66	20	24	4.3	.21
19	---						58	52	18	26	4.0	.19
20	---						59	79	14	6.8	4.0	.17
21	---						58	64	12	8.2	4.0	.17
22	---						94	78	20	5.0	3.7	.21
23	---						105	133	8.6	4.8	8.9	.21
24	---						86	145	8.6	4.3	6.8	.21
25	---						66	140	8.6	18	3.0	.21
26	---						66	120	9.3	18	.83	1.6
27	---						70	86	12	9.6	.83	2.4
28	---						66	104	11	6.8	1.8	2.4
29	---						72	120	20	3.4	2.3	2.4
30	---						58	113	15	3.1	7.5	2.4
31	---						---	100	---	3.1	1.5	---
TOTAL	---	---	---	---	---	---	---	3251	796.1	395.3	151.86	64.05
MEAN	---	---	---	---	---	---	---	105	26.5	12.8	4.90	2.14
MAX	---	---	---	---	---	---	---	163	96	26	16	15
MIN	---	---	---	---	---	---	---	52	8.6	3.1	.74	.17
AC-FT	---	---	---	---	---	---	---	6450	1580	784	301	127

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 mi² (520 km²), approximately.

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

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

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 km²), 2,000 acres (8.1 km²) of which are below station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 460 ft³/s (13.0 m³/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 ft³/s (28 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 189 ft³/s (5.35 m³/s) May 9, gage height, 3.93 ft (1.198 m); no flow for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2						---	54	98	7.6	9.1	.00
2	2.0						---	50	56	7.7	9.5	.00
3	1.9						---	51	30	7.4	9.7	.00
4	1.9						---	57	20	7.2	7.2	.00
5	.00						---	72	19	6.0	.28	.00
6	.00						---	103	18	17	.19	.00
7	.00						---	132	16	10	.75	.00
8	.00						.00	120	16	10	5.8	.00
9	---						.00	142	15	14	.99	.00
10	---						.00	149	18	13	.48	.00
11	---						.00	160	37	11	.27	.00
12	---						.00	147	24	4.3	.00	.00
13	---						.38	125	26	4.9	.00	3.3
14	---						.00	112	30	11	.00	11
15	---						.00	130	41	8.3	5.5	5.6
16	---						.27	101	22	8.7	.38	.00
17	---						.00	61	16	8.5	.00	.00
18	---						9.0	54	12	17	.00	.00
19	---						56	43	12	18	.00	.00
20	---						56	69	10	3.6	.00	.00
21	---						55	58	9.0	3.7	.00	.00
22	---						90	74	15	1.9	.00	.00
23	---						105	132	7.3	1.9	5.1	.00
24	---						85	145	7.1	1.8	1.0	.00
25	---						68	135	6.8	6.5	.58	.00
26	---						66	115	7.9	7.6	.00	.00
27	---						70	72	9.0	2.2	.00	.00
28	---						66	100	7.8	2.3	.00	.00
29	---						70	119	11	1.6	.00	.00
30	---						58	115	7.4	1.3	5.6	.00
31	---						---	103	---	.86	.00	---
TOTAL	---	---	---	---	---	---	---	3100	624.3	226.86	62.42	19.90
MEAN	---	---	---	---	---	---	---	100	20.8	7.32	2.01	.66
MAX	---	---	---	---	---	---	---	160	98	18	9.7	11
MIN	---	---	---	---	---	---	---	43	6.8	.86	.00	.00
AC-FT	---	---	---	---	---	---	---	6150	1240	450	124	39

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 ft³/s (1.42 m³/s) June 25, 1944, July 31, 1945; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 25 ft³/s (0.71 m³/s) June 4; no flow Apr. 9-26, May 14. 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 ft³/s (0.59 m³/s) June 25, 1944, Aug. 3, 7, 1945; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1.0 ft³/s (0.028 m³/s) Sept. 17; 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 ft³/s (0.28 m³/s) June 13, 15, July 11, 1961; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3.4 ft³/s (0.096 m³/s) May 5; 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 ft³/s (3.94 m³/s) July 10, 1980; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 139 ft³/s (3.94 m³/s) July 10; no flow part of Apr. 19.

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 ft³/s (2.29 m³/s) July 18, 19, 1973; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 77 ft³/s (2.18 m³/s) July 10, 31; no flow Apr. 19, May 20, Sept. 14, 15.

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, waterstage 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 ft³/s (0.82 m³/s) July 21, 1948; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 13 ft³/s (0.37 m³/s) May 22; 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 ft³/s (1.93 m³/s) July 18, 19, 1973; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 66 ft³/s (1.87 m³/s) June 10; no flow Sept. 20, 21, 25.

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 ft³/s (3.17 m³/s) May 16, 1958; no flow for long periods.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 62 ft³/s (1.76 m³/s) Apr. 23; no flow for long periods.

MONTHLY DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

	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	-	-	-	-	-	-	-	8.3
December	-	-	-	-	-	-	-	-
January	-	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-	78
April	-	-	-	-	-	-	-	1,190
May	332	0	72	2,920	1,860	285	1,330	578
June	974	0	33	6,630	3,400	302	2,840	508
July	873	0	17	6,050	3,270	353	2,660	137
August	667	0	48	3,940	2,080	224	1,770	76
September	329	3.9	32	1,380	725	90	587	71

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 mi² (21,860 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, CO.

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

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

REMARKS.--Water-discharge records good. Diversions above station for irrigation of about 620,000 acres (2,500 km²) in Colorado and 7,000 acres (28 km²) in New Mexico. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--32 years, 396 ft³/s (11.21 m³/s), 286,900 acre-ft/yr (354 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,740 ft³/s (276 m³/s) June 22, 1949, gage height, 15.78 ft (4.810 m); minimum, about 40 ft³/s (1.13 m³/s) Sept. 10, 11, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28 m³/s) and maximum (*):

Minimum daily discharge, 66 ft³/s (1.87 m³/s) Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	111	145	240	342	463	415	1600	2870	1390	259	86				
2	78	107	155	245	328	446	405	1720	2830	1340	280	78				
3	77	110	158	250	328	438	417	1680	2690	1350	289	72				
4	77	139	169	260	327	438	407	1490	2630	1410	273	67				
5	78	166	175	270	332	446	407	1510	2620	1370	246	67				
6	78	170	179	280	336	440	395	1680	2710	1310	213	67				
7	76	160	192	290	339	429	399	1820	2840	1130	200	66				
8	76	156	215	300	338	431	423	2010	2920	1070	269	67				
9	75	164	218	300	271	431	442	2190	2870	1100	395	72				
10	74	165	223	309	323	411	446	2380	2840	1080	367	86				
11	75	174	231	311	340	399	431	2450	2870	1020	367	86				
12	75	174	240	310	336	403	427	2340	2990	936	385	78				
13	74	163	244	317	331	391	452	2350	2980	762	342	75				
14	73	158	240	328	338	389	480	2150	2750	710	320	182				
15	73	154	227	343	361	387	459	1920	2310	640	300	184				
16	73	148	234	348	369	385	436	2030	2150	594	271	128				
17	74	152	244	355	381	399	436	2010	1970	520	202	99				
18	75	162	244	364	409	405	511	1790	1900	480	156	90				
19	76	168	236	368	444	407	589	1680	1840	417	128	84				
20	78	165	232	353	476	387	713	1790	1840	334	110	80				
21	80	120	247	369	483	385	945	1960	1910	311	99	73				
22	82	125	254	357	467	383	1130	2190	1880	302	92	72				
23	93	125	251	324	446	405	1310	2450	1720	321	86	74				
24	90	120	261	292	438	413	1370	2740	1620	316	88	74				
25	93	125	237	304	407	438	1510	2900	1570	280	92	72				
26	125	135	244	314	399	446	1460	2970	1540	294	94	73				
27	119	145	251	329	405	438	1330	2780	1530	379	100	72				
28	120	125	247	330	427	444	1250	2510	1560	363	184	70				
29	116	130	231	337	448	444	1290	2510	1540	314	154	68				
30	113	130	226	341	---	438	1380	2560	1490	309	122	74				
31	113	---	235	341	---	415	---	2720	---	303	103	---				
TOTAL	2658	4346	6885	9779	10969	12974	22065	66880	67780	22455	6586	2536				
MEAN	85.7	145	222	315	378	419	736	2157	2259	724	212	84.5				
MAX	125	174	261	369	483	463	1510	2970	2990	1410	395	184				
MIN	73	107	145	240	271	383	395	1490	1490	280	86	66				
AC-FT	5270	8620	13660	19400	21760	25730	43770	132700	134400	44540	13060	5030				
CAL. YR 1970	TOTAL	333343	MEAN 913	MAX	4940	MIN 73	AC-FT	661200								
WIR YR 1980	TOTAL	235913	MEAN 645	MAX	2990	MIN 66	AC-FT	467900								

08263500 RIO GRANDE NEAR CERRO, NM

WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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												
24...	1015	90	401	8.3	6.0	8.0	1.0	8.6	130	2	36	8.6
DEC												
03...	1445	155	300	8.1	4.0	3.0	1.7	10.0	94	7	28	5.8
FEB												
14...	1100	285	214	7.7	3.0	2.0	2.7	10.6	73	16	22	4.4
APR												
04...	1300	399	248	8.1	10.0	7.0	6.5	9.6	82	0	25	4.7
29...	1530	1280	133	8.1	--	12.0	24	9.4	45	8	14	2.5
JUN												
04...	1400	2590	145	8.2	27.0	15.0	14	8.8	49	5	15	2.9
JUL												
07...	1600	1080	150	8.2	26.0	19.0	12	8.2	56	10	17	3.3
AUG												
12...	1300	385	120	8.4	25.0	19.0	12	9.4	42	0	13	2.3
SEP												
17...	1600	98	185	8.7	--	16.0	3.5	--	69	0	20	4.6

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 (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT												
24...	34	1.3	5.1	150	0	123	71	9.2	.6	26	265	.09
DEC												
03...	21	.9	4.0	106	0	87	35	5.6	.4	34	188	.32
FEB												
14...	15	.8	3.1	70	0	57	26	3.4	.3	31	141	.34
APR												
04...	17	.8	3.0	100	0	82	38	4.5	.3	28	171	.20
29...	8.1	.5	1.9	54	0	44	16	1.8	.2	21	89	.18
JUN												
04...	8.2	.5	2.1	58	0	48	18	2.0	.1	20	95	.02
JUL												
07...	12	.7	2.8	62	0	51	31	3.0	.3	20	117	.02
AUG												
12...	8.4	.6	2.5	58	2	49	15	2.2	.2	20	93	.00
SEP												
17...	17	.9	3.1	--	--	74	25	4.5	.5	26	145	.00

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)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHOPH DISSOL. (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)	SAMPLE SOURCE (72005)
OCT											
24...	.11	.020	.54	.65	.080	.050	<10	8	6.0	.00	29
DEC											
03...	.35	.000	.52	.84	.070	.080	30	8	4.3	.00	29
FEB											
14...	.35	.170	.42	.93	.120	.110	60	10	1.9	--	--
APR											
04...	.21	.150	.23	.58	.140	.100	30	10	--	.00	--
29...	.15	.100	.87	1.2	.190	.060	140	8	5.3	.00	--
JUN											
04...	.13	.030	.67	.72	.140	.040	130	10	7.2	.00	--
JUL											
07...	.01	.010	.75	.78	.130	.040	80	20	6.2	.00	--
AUG											
12...	.00	.040	.64	.68	.110	.030	50	7	6.9	--	--
SEP											
17...	.01	.030	4.0	4.0	.080	.030	50	10	2.8	.00	--

RIO GRANDE BASIN
08263500 RIO GRANDE NEAR CERRO, NM

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)	SAMPLE SOURCE (72005)
OCT 24...	1015	0	10	8	3	<10	0	<3	29
DEC 03...	1445	0	30	8	3	<10	10	<3	29
FEB 14...	1100	0	60	10	2	<10	20	8	--
APR 04...	1300	0	30	10	2	<10	20	<3	--
29...	1530	0	140	8	1	<10	40	<3	--
JUN 04...	1400	0	130	10	0	<10	30	10	--
JUL 07...	1600	1	80	20	1	<10	20	9	--
AUG 12...	1300	0	50	7	1	<10	--	4	--
SEP 17...	1600	0	50	10	3	<10	30	6	--

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
APR 29...	1530	6
JUN 04...	1400	12
JUL 07...	1600	10
AUG 12...	1300	26

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SAMPLE SOURCE (72005)
OCT 24...	1015	90	8.0	6	1.5	29
DEC 03...	1445	155	3.0	5	2.1	29
FEB 14...	1100	285	2.0	13	10	--
APR 04...	1300	399	7.0	20	22	--
29...	1530	1280	12.0	78	270	--
JUL 07...	1600	1080	19.0	45	131	--
AUG 12...	1300	385	19.0	37	38	--

RIO GRANDE BASIN

08263510 RIO GRANDE ABOVE RED RIVER NEAR CERRO,NM

LOCATION.--Lat 36° 39' 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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
OCT 23...	1530	E135	321	8.5	19.0	11.0	1.0	--	100	0	28	7.2
FEB 11...	1600	E400	290	8.0	4.0	3.0	2.5	9.0	73	0	22	4.3
APR 04...	1500	E450	249	8.6	14.0	8.0	5.8	12.2	83	0	25	4.9
29...	1040	E1250	142	8.2	14.0	11.0	21	9.6	46	6	14	2.6
JUN 04...	1115	E2600	144	8.3	25.0	15.0	18	8.8	46	3	14	2.7

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 (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT 23...	27	1.2	4.2	110	8	104	49	7.7	.7	31	218	.22
FEB 11...	15	.8	2.8	120	0	98	24	3.7	.4	32	165	.40
APR 04...	17	.8	3.0	94	4	84	38	5.0	.4	29	123	.25
29...	8.4	.5	2.0	58	0	48	17	2.1	.2	21	92	.19
JUN 04...	8.2	.5	2.0	--	--	43	18	2.0	.1	20	93	.04

DATE	TIME	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, ORTHOPH OSPHATE DISSOL. (MG/L AS P) (00665)	PHOS- PHORUS, ORTHOPH OSPHATE DISSOL. (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)	SAMPLE SOURCE (72005)
OCT 23...		.24	.000	.41	.63	.040	.010	<10	5	5.4	.00	29
FEB 11...		.39	.250	.75	1.4	.110	.100	40	5	--	--	--
APR 04...		.25	.130	.35	.73	.100	.100	20	8	3.7	.00	--
29...		.18	.060	.74	.99	.170	.060	90	6	6.1	.00	--
JUN 04...		.06	.040	.75	.83	.130	.010	130	10	--	.00	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)	SAMPLE SOURCE (72005)
OCT 23...	1530	0	<10	5	3	<10	10	<3	29
FEB 11...	1600	0	40	5	2	<10	30	<3	--
APR 04...	1500	0	20	8	3	<10	30	6	--
29...	1040	0	90	6	1	<10	40	<3	--
JUN 04...	1115	0	130	10	0	<10	30	10	--

RIO GRANDE BASIN

08263510 RIO GRANDE ABOVE RED RIVER NEAR CERRO, NM

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
APR 29...	1040	11
JUN 04...	1115	21.

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SAMPLE SOURCE (72005)
OCT 23...	1530	E135	11.0	4	1.5	29
APR 04...	1500	E450	8.0	20	24	--
29...	1040	E1250	11.0	39	132	--

08264500 RED RIVER BELOW ZWERGLE DAM SITE 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 mi² (74.9 Km²).

PERIOD OF RECORD.--Water years 1962-65, 1979 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (000061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (000095)	PH FIELD (UNITS) (000400)	TEMPER- ATURE, AIR (DEG C) (000020)	TEMPER- ATURE, WATER (DEG C) (000010)	TUR- BID- ITY (NTU) (000076)	OXYGEN, DIS- SOLVED (MG/L) (000300)	HARD- NESS (MG/L AS CACO3) (000900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (000902)	CALCIUM DIS- SOLVED (MG/L AS CA) (000915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (000925)
OCT												
24...	1300	11	185	8.3	14.0	7.0	.30	--	90	8	29	4.3
DEC												
04...	0910	88.0	200	7.7	5.0	4.0	.40	9.0	93	0	30	4.3
FEB												
07...	1355	55.4	180	7.5	-4.0	.0	1.0	10.4	97	17	31	4.8
APR												
02...	1200	5.7	195	8.5	.0	.5	.00	9.1	93	0	30	4.5
28...	1345	16	175	8.4	15.0	8.0	3.1	8.4	82	14	26	4.2
JUN												
05...	1105	88	122	8.3	18.0	7.0	2.4	8.8	55	6	18	2.5
JUL												
09...	1200	50	130	8.3	22.0	11.0	1.1	9.2	63	7	21	2.5
AUG												
14...	1515	15	155	8.4	14.0	12.0	2.0	8.0	83	9	27	3.7
SEP												
10...	1130	36	150	8.0	--	8.0	18	8.4	75	17	25	3.1

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (000930)	SODIUM AD- SORP- TION RATIO (000931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (000935)	BICAR- BONATE (MG/L AS HCO3) (000440)	CAR- BONATE (MG/L AS CO3) (000445)	ALKA- LINITY (MG/L AS CACO3) (000410)	SULFATE DIS- SOLVED (MG/L AS SO4) (000945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (000940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (000950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (000955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (000630)
OCT												
24...	2.9	.1	1.3	100	0	82	17	1.1	.2	6.9	113	.00
DEC												
04...	3.5	.2	1.3	130	0	89	14	.9	.1	7.4	126	.14
FEB												
07...	3.6	.2	.9	98	0	80	14	1.2	.1	7.6	113	.13
APR												
02...	2.7	.1	.7	110	4	97	15	.4	.1	7.5	61	.10
28...	2.7	.1	.6	90	2	77	11	.7	.2	8.9	96	.11
JUN												
05...	2.0	.1	.5	62	0	51	8.3	.2	.2	6.8	68	.07
JUL												
09...	1.6	.1	.6	68	0	56	9.2	.2	.1	6.1	75	.06
AUG												
14...	2.2	.1	.7	92	2	74	10	.5	.1	7.3	96	.00
SEP												
10...	2.0	.1	.9	82	0	58	13	.6	.1	6.7	86	.11

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (000631)	NITRO- GEN, AMMONIA (MG/L AS N) (000610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (000605)	NITRO- GEN, TOTAL (MG/L AS N) (000600)	PHOS- PHORUS, TOTAL (MG/L AS P) (000665)	PHOS- PHORUS, ORTHOPH- OSPHATE DISSOL. (MG/L AS P) (000671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (000680)	CYANIDE TOTAL (MG/L AS CN) (000720)	SAMPLE SOURCE (72005)
OCT											
24...	.15	.000	.37	.37	.010	.010	<10	20	1.5	.00	--
DEC											
04...	.16	.020	.43	.59	.010	.520	<10	3	5.6	.00	29
FEB											
07...	.14	.000	.36	.49	.010	.370	<10	6	1.2	--	--
APR											
02...	.11	.100	.27	.47	.010	.010	<10	3	.0	.00	--
28...	.10	.040	.59	.74	.020	.030	20	10	4.5	.00	--
JUN											
05...	.08	.010	.49	.57	.010	.020	20	7	4.2	.00	--
JUL											
09...	.07	.010	.91	.98	.000	.010	<10	5	--	.00	--
AUG											
14...	.01	.000	.35	.35	.010	.000	<10	20	3.6	--	--
SEP											
10...	.04	.000	.91	1.0	.120	.000	10	10	5.5	--	--

RIO GRANDE BASIN

08264500 RED RIVER BELOW ZWERGLE DAM SITE NEAR RED RIVER, NM

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)	SAMPLE SOURCE (72005)
OCT 24...	1300	0	<10	20	2	<10	40	40	--
DEC 04...	0910	0	<10	3	1	<10	0	<3	29
FEB 07...	1355	0	<10	6	2	<10	40	<3	--
APR 02...	1200	0	<10	3	2	<10	20	6	--
28...	1345	0	20	10	1	<10	10	<3	--
JUN 05...	1105	0	20	7	0	1	20	8	--
JUL 09...	1200	1	<10	5	2	<10	10	6	--
AUG 14...	1515	0	<10	20	1	<10	--	4	--
SEP 10...	1130	0	10	10	2	<10	30	5	--

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
APR 28...	1345	1
JUN 05...	1105	0
JUL 09...	1200	0
AUG 14...	1515	17
SEP 10...	1130	52

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SAMPLE SOURCE (72005)
OCT 24...	1300	11	7.0	1	.03	--
DEC 04...	0910	88.0	4.0	4	.09	29
FEB 07...	1355	85.4	.0	3	.04	--
APR 02...	1200	5.7	.5	0	.00	--
28...	1345	16	8.0	1	.04	--
AUG 14...	1515	15	12.0	69	2.8	--
SEP 10...	1130	36	8.0	117	11	--

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 mi² (203 Km²).

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
OCT 24...	1400	18	260	7.8	15.0	6.0	1.8	--	130	58	37	7.9
DEC 04...	1050	13	230	7.2	1.0	.0	1.9	12.0	120	65	36	7.5
FEB 07...	1430	11	283	7.5	-2.0	1.0	2.0	13.0	130	80	38	8.6
APR 02...	1415	12	281	8.0	3.0	.5	1.5	9.8	120	76	36	8.1
JUN 28...	1720	34	244	8.1	14.0	11.0	3.6	8.0	110	55	32	6.5
JUL 05...	1025	145	144	8.0	20.0	6.5	5.6	10.0	61	16	19	3.3
AUG 09...	1450	59	160	7.8	17.0	12.0	2.2	8.8	83	30	26	4.5
SEP 14...	1330	25	218	8.0	15.0	14.0	3.9	8.0	110	50	32	6.5
SEP 10...	1000	34	200	7.9	--	9.0	22	8.8	97	40	30	5.4

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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 24...	4.7	.2	1.2	82	0	67	66	1.6	.3	12	173
DEC 04...	4.8	.2	1.3	68	0	56	70	2.0	.3	12	169
FEB 07...	5.8	.2	1.3	61	0	50	75	2.1	.4	13	176
APR 02...	4.9	.2	1.1	58	0	48	76	1.9	.3	12	142
JUN 28...	4.7	.2	1.0	70	0	57	53	2.2	.3	13	145
JUL 05...	2.7	.2	.6	54	0	44	23	.7	.1	9.5	86
AUG 09...	3.0	.1	.9	72	0	59	34	.8	.2	9.1	111
SEP 14...	4.2	.2	1.1	74	0	57	53	1.6	.3	12	146
SEP 10...	4.0	.2	1.3	74	0	57	43	1.4	.2	9.8	130

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, 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, ORTHOPH- OSPHATE DISSOL. (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 24...	.04	.22	.060	.50	.60	.030	.010	<10	150	1.9	.77
DEC 04...	.16	.18	.080	.36	.60	.040	.010	<10	280	3.0	.00
FEB 07...	.23	.28	.370	.47	1.1	.100	.030	10	200	1.7	--
APR 02...	.20	.22	.400	.31	.91	.050	.000	<10	230	3.6	.00
JUN 28...	.18	.15	.230	.26	.67	.060	.030	30	110	3.8	.00
JUL 05...	.08	.09	.030	.46	.57	.040	.020	50	40	4.3	.00
AUG 09...	.00	.04	.010	3.9	3.9	.050	.010	20	60	1.8	.00
SEP 14...	.12	.12	.200	.90	1.2	.110	.030	<10	120	2.6	.00
SEP 10...	.13	.11	.010	.38	.52	.110	.010	30	100	3.6	.0

RIO GRANDE BASIN

08264970 RED RIVER AT MOLYCORP MINE NEAR RED RIVER, NM

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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, TOTAL RECOV- ERABLE (UG/L AS MO) (01060)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01090)
OCT 24...	1400	0	<10	150	0	<10	20	130
DEC 04...	1050	1	<10	280	2	10	50	40
FEB 07...	1430	0	10	200	3	10	80	40
APR 02...	1415	0	<10	230	2	<10	60	40
28...	1720	0	30	110	2	<10	40	20
JUN 05...	1025	0	50	40	0	<10	30	8
JUL 09...	1450	1	20	60	3	<10	50	10
AUG 14...	1330	0	<10	120	1	2	160	20
SEP 10...	1000	0	30	100	4	<10	250	20

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
APR 28...	1720	1
JUN 05...	1025	5
JUL 09...	1450	80
AUG 14...	1330	280
SEP 10...	1000	120

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 24...	1400	18	6.0	4	.19
DEC 04...	1050	13	.0	5	.18
FEB 07...	1430	11	1.0	12	.36
APR 02...	1415	12	.5	1	.03
28...	1720	34	11.0	13	1.2
AUG 14...	1330	25	14.0	10	.67

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 mi² (293 km²).

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 ft³/s (1.583 m³/s), 40,500 acre-ft/yr (49.9 hm³/yr), prior to extensive upstream diversions by MolyCorp; 15 years (water years 1966-80), 34.5 ft³/s (0.977 m³/s), 25,000 acre-ft/yr (30.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1929).--Maximum discharge, 886 ft³/s (25.1 m³/s) May 25, 1942, from rating curve extended above 450 ft³/s (13 m³/s); maximum gage height, 5.80 ft (1.768 m) June 8, 1979; minimum discharge, 1.5 ft³/s (0.042 m³/s) Nov. 23, 1957.

The maximum discharge of May 25, 1942, may have been equalled or exceeded by the peak of June 15, 1921.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 160 ft³/s (4.5 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 24	2030	272 7.70	3.98 1.213	June 11	0130	*289 8.18	4.05 1.234

Minimum discharge, 3.4 ft³/s (0.096 m³/s) Apr. 1, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	22	7.0	11	12	14	9.8	48	189	130	42	19
2	24	19	8.1	12	12	13	15	46	180	123	39	18
3	24	19	11	9.8	13	14	13	47	176	118	38	18
4	23	20	13	9.2	12	15	13	57	180	110	40	18
5	24	20	15	11	13	14	14	66	191	103	36	20
6	24	20	14	14	13	14	15	79	204	98	35	19
7	24	20	15	14	13	14	15	86	208	94	36	21
8	23	20	16	14	12	12	13	109	202	90	36	22
9	22	21	16	14	9.0	12	14	108	231	85	38	27
10	24	21	17	15	9.5	12	15	108	263	81	32	44
11	24	19	18	14	10	12	15	114	278	76	35	42
12	24	18	18	15	11	12	13	108	272	72	32	32
13	23	16	14	14	12	11	13	101	257	68	31	29
14	23	16	10	15	13	12	14	101	243	64	31	27
15	22	16	12	15	13	13	16	102	233	59	30	26
16	23	16	15	15	12	13	17	98	217	57	28	23
17	21	17	14	14	12	12	18	92	208	54	27	22
18	24	18	14	15	12	12	20	93	211	50	27	20
19	24	18	13	15	14	13	24	96	208	48	25	20
20	24	19	13	14	14	13	33	115	198	49	25	19
21	26	8.8	15	11	13	13	43	148	193	47	24	18
22	23	7.4	15	9.9	13	13	50	191	182	48	23	18
23	23	7.4	14	6.6	12	13	54	253	175	47	22	18
24	23	7.8	12	7.3	11	12	52	251	172	47	21	17
25	23	19	14	9.7	11	14	44	231	168	46	22	16
26	23	14	16	11	12	12	40	211	162	44	21	16
27	22	16	15	13	14	13	38	193	156	41	20	16
28	21	8.9	14	14	14	13	38	193	150	39	21	16
29	22	6.8	11	15	14	13	45	198	142	38	20	17
30	22	6.7	9.9	13	---	12	49	196	135	37	19	18
31	21	---	10	12	---	13	---	191	---	38	19	---
TOTAL	715	468.8	419.0	391.5	355.5	398	772.8	4030	5984	2101	895	656
MEAN	23.1	15.6	13.5	12.6	12.3	12.8	25.8	130	199	67.8	28.9	21.9
MAX	26	22	18	15	14	15	54	253	278	130	42	44
MIN	21	6.7	7.0	6.6	9.0	11	9.8	46	135	37	19	16
AC-FT	1470	930	831	777	705	789	1530	7990	11870	4170	1780	1300
(†)	539	567	564	471	554	494	485	490	501	488	507	554
CAL. YR 1979 TOTAL	32840.7											
MEAN	90.0											
MAX	557											
MIN	4.0											
AC-FT	65140											
(†)	6270											
WPD YR 1980 TOTAL	17186.6											
MEAN	47.0											
MAX	278											
MIN	6.6											
AC-FT	34090											
(†)	6210											

† Bypass flow of water, in acre-feet, through tailings pipelines; records furnished by MolyCorp.

RIO GRANDE BASIN
08265000 RED RIVER NEAR QUESTA, NM

WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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) (00902)	CALCIUM DIS- SOLVED (MG/L AS Ca) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg) (00925)
OCT												
24...	1450	24	241	7.7	16.0	7.0	4.7	8.4	120	67	36	7.3
DEC												
04...	1140	12	340	7.1	8.0	2.0	12	8.6	140	110	44	8.2
17...	1330	14	350	7.8	--	.0	130	10.0	140	99	45	7.7
17...	1430	13	340	7.5	8.0	1.0	--	9.6	170	--	55	8.5
FEB												
07...	1155	13	290	7.5	4.0	2.0	1.0	9.2	140	100	42	8.6
APR												
02...	1530	17	294	7.6	.0	4.0	8.8	8.8	130	82	38	7.7
28...	1830	38	278	7.7	--	11.0	17	7.7	120	76	35	6.9
JUN												
03...	1540	176	157	8.0	27.5	11.0	7.2	8.4	67	25	21	3.5
JUL												
09...	1600	82	190	7.8	22.0	13.0	2.1	8.6	89	39	28	4.6
AUG												
14...	1645	32	238	8.0	--	14.0	66	8.0	110	62	34	6.3
SEP												
10...	0900	46	220	8.0	--	9.0	40	8.2	110	57	33	5.9

DATE	SODIUM, DIS- SOLVED (MG/L AS Na) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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 CONSTITUENTS, DIS- SOLVED (MG/L) (70301)
OCT											
24...	4.6	.2	1.2	64	0	52	83	2.0	.6	19	186
DEC											
04...	5.0	.2	1.2	46	0	38	100	2.7	1.1	11	198
17...	5.1	.2	1.7	--	--	45	100	2.5	.5	10	201
17...	5.3	.2	2.1	--	--	--	--	--	--	--	--
FEB											
07...	5.8	.2	1.1	--	--	38	36	.6	.4	13	132
APR											
02...	4.5	.2	1.0	54	0	44	100	2.5	.7	10	132
28...	4.6	.2	1.0	58	0	48	74	2.1	.5	11	164
JUN											
03...	3.1	.2	.7	--	--	42	28	.8	.1	10	93
JUL											
09...	3.4	.2	.9	62	0	51	40	1.0	.5	9.0	118
AUG											
14...	4.5	.2	1.1	66	0	49	66	2.5	.6	11	157
SEP											
10...	3.8	.2	1.4	70	0	50	55	2.0	.4	9.9	142

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED 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, ORTHOPH- OSPHATE DISSOL. (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											
24...	.09	.15	.000	.35	.44	.020	.010	10	310	2.6	.00
DEC											
04...	.23	.25	.000	.45	.68	.030	.010	20	600	2.9	.00
17...	.27	.28	.000	.44	.71	.230	.010	10	490	--	--
17...	--	--	--	--	--	--	--	10	580	--	--
FEB											
07...	.28	.30	.120	1.2	1.6	.040	.000	20	490	--	--
APR											
02...	.18	.18	.120	1.2	1.5	.060	.000	<10	450	2.2	.00
28...	.18	.90	.040	1.7	1.9	.070	.030	<10	390	2.0	.00
JUN											
03...	.08	.08	.010	.99	1.1	.040	.040	140	110	4.6	.00
JUL											
09...	.05	.07	.010	.47	.53	.030	.000	10	160	1.3	.00
AUG											
14...	.16	.17	.020	1.3	1.5	.130	.020	20	300	4.0	.00
SEP											
10...	.13	.14	.000	.68	.81	.200	.010	20	190	5.2	.01

08265000 RED RIVER NEAR QUESTA, NM

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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								
24...	1450	0	10	310	7	1	60	50
DEC								
04...	1140	1	20	600	3	<10	140	130
17...	1330	1	10	490	52	29	170	80
17...	1430	--	10	580	130	53	270	60
FEB								
07...	1155	1	20	490	7	<10	160	90
APR								
02...	1530	0	<10	450	10	<10	120	70
28...	1830	1	<10	390	6	<10	110	50
JUN								
03...	1540	0	140	110	0	2	50	20
JUL								
09...	1600	1	10	160	6	<10	50	20
AUG								
14...	1645	0	20	300	7	6	110	30
SEP								
10...	0900	1	20	190	9	<10	140	30

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
APR		
28...	1830	37
JUN		
03...	1540	11
JUL		
09...	1600	16
AUG		
14...	1645	27
SEP		
10...	0900	120

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
DEC					
04...	1140	12	2.0	41	1.3
17...	1330	14	.0	212	8.0
17...	1430	13	1.0	462	16
APR					
02...	1530	17	4.0	30	1.4
28...	1830	38	11.0	478	49
AUG					
14...	1645	32	14.0	2	.17
SEP					
10...	0900	46	9.0	144	18

08266000 CABRESTO CREEK NEAR QUESTA, NM

LOCATION.--Lat 36°43'50", long 105°33'12", in SE½SE¼ 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 mi² (95.1 km²).

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 km²) 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 m³, 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 km³) after further rehabilitation between 1959 and 1961. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--37 years, 9.75 ft³/s (0.276 m³/s), 7,060 acre-ft/yr (8.70 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 176 ft³/s (4.98 m³/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 ft³/s (0.012 m³/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, 124 ft³/s (3.51 m³/s) May 25, gage height, 4.09 ft (1.247 m); minimum, 2.0 ft³/s (0.057 m³/s) Feb. 25, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	JCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	5.5	5.4	6.6	5.8	6.0	5.0	16	86	14	14	8.8
2	6.3	5.4	6.7	6.6	6.0	5.8	5.4	16	77	14	14	8.5
3	8.3	5.3	6.9	6.0	6.1	6.1	5.1	16	69	13	14	8.3
4	8.3	5.7	6.7	6.1	6.1	6.0	5.1	18	69	13	13	7.9
5	8.1	5.8	6.8	6.6	6.1	6.1	5.4	21	70	13	13	7.7
6	7.8	5.8	6.9	6.5	6.1	6.1	5.6	23	64	14	13	7.9
7	7.0	6.0	6.9	6.4	6.1	6.0	5.5	26	62	14	13	7.8
8	7.3	6.3	6.8	6.2	5.9	5.7	5.1	30	61	14	14	7.8
9	7.1	6.4	6.8	6.2	4.4	5.8	5.4	33	63	14	15	8.0
10	7.1	6.6	6.8	6.4	5.3	5.8	5.9	36	68	14	14	8.5
11	7.0	6.4	6.9	6.3	5.7	6.1	6.5	37	70	14	14	8.3
12	6.8	6.1	6.9	6.3	5.7	6.0	5.9	30	66	14	14	7.9
13	6.7	5.8	6.7	6.2	5.9	5.3	5.1	26	63	13	13	7.6
14	6.6	6.1	6.5	6.2	5.8	6.0	5.7	26	57	14	13	7.3
15	6.6	6.3	6.7	6.2	5.7	6.4	6.4	33	52	15	13	7.2
16	6.3	6.5	6.7	6.2	5.6	6.5	7.4	35	44	14	12	6.9
17	7.0	6.5	6.7	6.1	5.6	5.8	8.6	34	41	13	11	6.8
18	7.9	6.9	6.7	6.2	5.8	5.7	11	36	39	13	11	6.6
19	7.8	6.9	6.7	6.2	5.9	6.6	15	39	38	14	11	6.4
20	7.6	7.0	6.7	6.2	5.8	6.5	17	52	34	13	11	6.2
21	8.6	4.9	6.7	4.9	5.8	6.7	18	65	32	13	10	6.0
22	8.4	4.9	6.6	4.4	5.9	7.1	20	82	30	13	9.6	5.8
23	8.4	4.9	6.6	3.8	5.4	7.0	22	98	25	13	9.4	5.6
24	8.4	5.7	6.1	4.6	5.4	6.6	20	99	22	12	9.1	5.5
25	7.8	7.0	6.5	6.0	4.8	7.1	17	97	21	12	9.1	5.6
26	5.8	7.0	6.5	6.3	5.5	6.6	15	89	20	12	8.9	5.7
27	5.4	7.1	6.6	6.1	5.8	7.0	14	84	20	13	9.4	5.8
28	5.3	5.1	6.5	6.1	6.1	6.9	14	81	19	13	9.8	5.6
29	5.5	4.6	5.4	6.2	6.2	6.7	15	86	15	13	9.6	5.5
30	5.6	4.6	5.3	6.2	---	6.3	16	91	13	13	9.4	5.4
31	5.5	---	5.3	5.9	---	6.6	---	88	---	14	9.1	---
TOTAL	223.4	179.1	202.0	186.2	166.3	194.9	313.1	1543	1410	415	363.4	208.9
MEAN	7.21	5.97	6.52	6.01	5.73	6.29	10.4	49.8	47.0	13.4	11.7	6.96
MAX	8.6	7.1	6.9	6.6	6.2	7.1	22	99	86	15	15	8.8
MIN	5.3	4.6	5.3	3.8	4.4	5.3	5.0	16	13	12	8.9	5.4
AC-FT	443	355	401	369	330	387	621	3060	2800	823	721	414
(†)	0	-	-	-	-	0	0	185	667	565	81	0
CAL. YR 1979 TOTAL	8663.9											
WTR YR 1980 TOTAL	5405.3											
MEAN	23.7											
MAX	155											
MIN	1.2											
AC-FT	17180											
WTR	10720											

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

08266000 CABRESTO CREEK NEAR QUESTA, NM

WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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 24...	1520	8.0	154	7.4	13.0	7.0	.20	8.2	63	17	20	3.2	
FEB 07...	1600	6.1	150	7.4	-2.0	2.0	.25	9.4	70	30	22	3.6	
APR 07...	1126	5.5	169	7.8	5.0	3.0	.80	10.2	74	36	23	4.0	
28...	1700	12	151	7.9	--	8.0	1.6	8.0	61	22	19	3.2	
JUN 03...	1615	67	96	8.0	25.5	9.0	4.9	8.4	40	9	13	1.9	
AUG 15...	1130	13	122	8.0	--	12.0	1.0	8.1	56	15	18	2.6	
SEP 10...	1330	8.5	135	7.7	--	11.0	.60	8.8	63	22	20	3.1	
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 (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT 24...	3.9	.2	.9	56	0	46	28	.7	.3	20	105	.00	
FEB 07...	3.8	.2	.8	48	0	39	110	2.8	1.0	12	180	.08	
APR 07...	4.3	.2	.8	46	0	38	34	.8	.3	12	59	.03	
28...	3.5	.2	.7	54	0	44	25	.5	.3	12	88	.04	
JUN 03...	2.9	.2	.7	--	--	31	11	.4	.1	11	60	.03	
AUG 15...	3.1	.2	.6	56	0	41	22	.6	.3	10	82	.00	
SEP 10...	3.3	.2	.8	56	0	41	25	.9	.4	10	88	.00	
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)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHOPH OSPHATE DISSOL. (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)	CYANIDE TOTAL (MG/L AS CN) (00720)	SAMPLE SOURCE (72005)
OCT 24...	.04	.000	.26	.26	.010	.030	10	6	--	--	.00	29	
FEB 07...	.08	.000	.61	.69	.010	.000	20	4	--	--	--	--	
APR 07...	.05	.000	.66	.69	.010	.000	10	7	2.5	--	.00	--	
28...	.04	.040	.45	.53	.020	.040	<10	10	2.7	--	.00	--	
JUN 03...	.04	.010	.43	.47	.030	.030	70	10	4.3	--	.00	--	
AUG 15...	.00	.000	.37	.37	.020	.010	10	30	3.5	--	--	--	
SEP 10...	.00	.000	.27	.27	.030	.000	<10	6	1.2	1.2	--	--	

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

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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, TOTAL DIS- SOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
OCT 24...	1520	0	10	6	0	0	10	10	29
FEB 07...	1600	0	20	4	1	<10	20	5	--
APR 07...	1126	0	10	7	2	<10	0	6	--
28...	1700	0	<10	10	1	<10	20	<3	--
JUN 03...	1615	0	70	10	0	<10	40	4	--
AUG 15...	1130	0	10	30	0	<10	20	5	--
SEP 10...	1330	0	<10	6	2	<10	10	6	--

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
APR 28...	1700	0
JUN 03...	1615	0
AUG 15...	1130	7
SEP 10...	1330	0

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SAMPLE SOURCE (72005)
OCT 24...	1520	8.0	7.0	1	.02	29
FEB 07...	1600	6.1	2.0	4	.07	--
APR 07...	1126	5.5	3.0	0	.00	--
28...	1700	12	8.0	1	.03	--
AUG 15...	1130	13	12.0	17	.60	--

08266500 RED RIVER BELOW QUESTA, NM

LOCATION.--Lat 36°41'34", long 105°36'42", SW $\frac{1}{4}$ NE $\frac{1}{4}$ 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.--160mi² (414 Km²).
 PERIOD OF RECORD.--Water years 1979 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS (MG/L AS CaCO ₃) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CaCO ₃) (00902)	CALCIUM DIS- SOLVED (MG/L AS Ca) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg) (00925)
OCT												
25...	1130	25	290	7.5	--	6.5	6.4	8.3	120	64	37	7.4
DEC												
05...	1020	18	310	7.0	7.0	2.0	14	8.2	130	77	39	6.9
FEB												
14...	1500	El7	298	7.3	5.0	5.0	14	9.0	130	78	40	7.9
APR												
02...	1615	18	303	7.7	4.5	4.5	10	9.1	130	85	40	7.9
29...	0730	47	261	7.7	5.0	8.0	8.4	8.4	110	70	34	6.5
JUN												
05...	0940	225	153	8.1	16.0	5.5	9.2	8.6	64	23	20	3.4
JUL												
08...	1950	80	200	7.9	20.0	15.0	2.7	8.8	96	43	30	5.1
AUG												
13...	1530	28	246	7.7	--	20.0	14	7.6	110	57	35	6.4
SEP												
09...	1830	19	260	7.9	--	13.0	6.6	8.4	120	76	38	7.2

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 (MG/L AS HCO ₃) (00440)	CAR- BONATE (MG/L AS CO ₃) (00445)	ALKA- LINITY (MG/L AS CaCO ₃) (00410)	SULFATE DIS- SOLVED (MG/L AS SO ₄) (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 SiO ₂) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N) (00630)
OCT												
25...	5.4	.2	1.4	72	0	59	83	2.2	.7	21	195	.06
DEC												
05...	5.0	.2	1.2	60	0	49	85	2.2	.8	12	183	.14
FEB												
14...	5.8	.2	1.7	66	0	54	91	3.1	.9	12	196	.21
APR												
02...	5.2	.2	1.1	58	0	48	100	2.3	.9	11	170	.17
29...	4.8	.2	1.2	62	0	51	65	2.1	.7	12	153	.17
JUN												
05...	3.0	.2	.7	52	0	43	27	.7	.1	9.8	90	.08
JUL												
08...	3.5	.2	1.0	68	0	56	45	1.2	.6	10	129	.02
AUG												
13...	5.0	.2	1.3	180	0	57	66	3.1	.6	12	165	.13
SEP												
09...	4.8	.2	1.7	75	0	49	72	3.8	.7	12	170	.05

DATE	NITRO- GEN, NO ₂ +NO ₃ 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, ORTHOPH OSPHATE DISSOL. (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)	SAMPLE SOURCE (72005)
OCT											
25...	.11	.000	.60	.66	.030	.000	20	230	--	.77	29
DEC											
05...	.15	.000	.43	.57	.030	.000	<10	250	3.7	.00	29
FEB											
14...	.23	.120	.38	.71	.050	.000	<10	350	15	--	--
APR											
02...	.27	.150	--	--	.060	.000	<10	380	.6	--	--
29...	.18	.040	.35	.56	.060	.030	20	280	3.6	.000A	--
JUN											
05...	.11	.010	.49	.58	.060	.020	50	70	4.2	.00	--
JUL											
08...	.05	.010	.73	.76	.010	.000	20	140	1.7	.00	--
AUG											
13...	.14	.030	.34	.50	.070	.000	30	200	4.3	.00	--
SEP											
09...	.10	.000	.27	.32	.050	.000	10	190	1.9	--	--

A RESULTS OF CUSTOM ANALYSIS (NON-STANDARD METHODS AND TECHNIQUES USED).
 ALTERNATE ULTRAVIOLET DIGESTION METHOD OF ANALYSIS GAVE RESULTS OF
 .000 MG/L FOR TOTAL CYANIDE.
 CYANIDE DISSOLVED (MG/L) AS CN (00723) .000 MG/L.
 ALTERNATIVE ULTRAVIOLET DIGESTION METHOD OF ANALYSIS GAVE RESULTS OF
 .000 MG/L FOR DISSOLVED CYANIDE.

RIO GRANDE BASIN

08266500 RED RIVER BELOW QUESTA, NM

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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, TOTAL RECOV- ERABLE (UG/L AS MO) (01060)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
OCT 25...	1130	0	20	230	10	7	30	30	29
DEC 05...	1020	1	<10	250	2	<10	70	50	29
FEB 14...	1500	0	<10	350	8	<10	110	50	--
APR 02...	1615	0	<10	380	9	<10	90	50	--
29...	0730	0	20	280	7	<10	90	40	--
JUN 05...	0940	0	50	70	0	5	50	20	--
JUL 08...	1950	1	20	140	12	<10	40	20	--
AUG 13...	1530	0	30	200	8	<10	60	20	--
SEP 09...	1830	0	10	190	9	<10	50	30	--

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
APR 29...	0730	20
JUN 05...	0940	11
JUL 08...	1950	18
AUG 13...	1530	16
SEP 09...	1830	39

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SAMPLE SOURCE (72005)
OCT 25...	1130	25	6.5	20	1.3	29
DEC 05...	1020	18	2.0	27	1.3	29
FEB 14...	1500	El7	5.0	35	1.6	--
APR 02...	1615	18	4.5	13	.63	--
29...	0730	47	8.0	88	11	--
AUG 13...	1530	28	20.0	27	2.1	--

LOCATION.--Lat 36°41'12" long 105°38'40", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T.28N., R.12E., Taos County, Hydrologic Unit 13020101, 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 mi² (453 Km²).

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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 25...	1350	37	466	8.1	19.0	11.0	3.4	9.0	190	120	62	9.5
DEC 05...	0920	E34	593	7.8	-1.0	4.0	1.8	9.0	250	180	82	9.8
FEB 14...	1730	34	728	7.7	3.0	7.0	5.2	8.6	350	280	120	12
APR 03...	1230	25	766	8.2	9.0	9.0	3.4	8.0	350	290	120	12
27...	1730	58	576	8.0	--	11.0	6.3	7.4	260	210	86	9.9
JUN 05...	0900	E240	270	7.9	13.0	6.0	12	9.6	84	40	27	4.1
JUL 08...	1730	E84	290	8.1	24.0	15.0	2.0	8.2	130	74	43	6.1
AUG 13...	1300	E50	410	7.8	25.0	17.0	12	7.4	180	120	58	8.8
SEP 09...	1530	29	575	8.3	--	14.0	11	9.4	250	180	81	11

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 (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT 25...	16	.5	3.1	88	0	72	160	5.2	.8	17	318	.11
DEC 05...	22	.6	4.4	82	0	67	210	6.2	1.1	20	398	.26
FEB 14...	20	.5	5.5	90	0	74	310	6.2	1.1	16	537	.28
APR 03...	23	.5	5.9	78	0	64	330	6.9	1.2	16	555	.24
27...	14	.4	3.5	70	0	57	210	4.3	.9	14	374	.18
JUN 05...	4.5	.2	1.0	56	0	46	42	1.3	.2	11	118	.09
JUL 08...	8.2	.3	1.9	74	0	61	82	2.3	.7	12	192	.02
AUG 13...	13	.4	3.0	84	0	66	130	4.5	.8	16	275	.16
SEP 09...	17	.5	4.4	92	0	66	190	5.0	.9	16	366	.10

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)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHOPH- OSPHATE DISSOL. (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)	SAMPLE SOURCE (72005)
OCT 25...	.14	.000	.54	.65	.030	.000	10	180	--	.00	--
DEC 05...	.27	.120	.40	.78	.030	.010	<10	140	1.6	.02	29
FEB 14...	.28	.020	.41	.71	.040	.010	<10	270	2.8	--	--
APR 03...	.25	.150	--	--	.040	.000	<10	230	.7	--	--
27...	.19	.040	.37	.59	.050	.030	20	240	1.7	.004A	--
JUN 05...	.13	.040	.47	.60	.050	.030	50	70	--	.00	--
JUL 08...	.03	.000	.57	.59	.020	.000	20	110	2.2	.00	--
AUG 13...	.19	.020	.33	.51	.060	.000	10	180	5.4	.00	--
SEP 09...	.17	.000	.29	.39	.060	.010	20	140	2.3	--	--

A RESULTS OF CUSTOM ANALYSIS (NONSTANDARD METHODS AND TECHNIQUES USED).
ALTERNATE ULTRAVIOLET DIGESTION METHOD OF ANALYSIS GAVE RESULTS OF
.004 MG/L FOR TOTAL CYANIDE.
CYANIDE DISSOLVED (MG/L) AS CN (00723) .003 MG/L.
ALTERNATIVE ULTRAVIOLET DIGESTION METHOD OF ANALYSIS GAVE RESULTS OF
.004 MG/L FOR DISSOLVED CYANIDE.

RIO GRANDE BASIN

08266790 RED RIVER ABOVE STATE FISH HATCHERY NEAR QUESTA, NM

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)	SAMPLE SOURCE (72005)
OCT 25...	1350	0	10	180	120	150	40	20	--
DEC 05...	0920	0	<10	140	23	230	20	20	29
FEB 14...	1730	0	<10	270	400	340	60	20	--
APR 03...	1230	0	<10	230	350	400	50	20	--
27...	1730	0	20	240	290	250	60	20	--
JUN 05...	0900	0	50	70	40	47	50	20	--
JUL 08...	1730	1	20	110	100	82	30	10	--
AUG 13...	1300	0	10	180	170	190	100	20	--
SEP 09...	1530	0	20	140	290	310	50	10	--

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
APR 27...	1730	4
JUN 05...	0900	14
JUL 08...	1730	28
AUG 13...	1300	25
SEP 09...	1530	36

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SAMPLE SOURCE (72005)
OCT 25...	1350	37	11.0	12	1.2	--
DEC 05...	0920	E34	4.0	6	.55	29
FEB 14...	1730	34	7.0	17	1.6	--
APR 03...	1230	25	9.0	3	.21	--
27...	1730	58	11.0	21	3.3	--
AUG 13...	1300	E50	17.0	26	3.5	--

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 mi² (479 km²).

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 except those for March and July, which are fair. Diversions for irrigation of about 3,000 acres (12 km²) above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 755 ft³/s (21.4 m³/s) June 8, 1979, gage height, 5.30 ft (1.615 m), site and datum then in use; minimum, 25 ft³/s (0.71 m³/s) Oct. 9, 11, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 165 ft³/s (4.7 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 25	0315	*398 11.3	3.47 1.058	June 11	0645	379 10.7	3.41 1.039

Minimum discharge, 32 ft³/s (0.91 m³/s) Jan. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	46	37	40	44	44	40	96	266	155	67	48
2	46	44	38	43	44	44	43	97	258	156	65	46
3	47	44	44	41	45	45	42	95	250	150	65	44
4	47	45	46	41	46	45	42	100	247	142	66	43
5	47	44	46	44	46	45	42	110	256	131	62	44
6	47	44	45	44	45	44	42	136	266	123	61	43
7	47	45	46	45	46	44	41	145	271	115	66	44
8	49	45	45	45	43	43	39	161	268	110	62	44
9	49	47	47	46	40	42	39	167	298	105	67	47
10	49	46	47	45	40	42	39	169	335	100	63	60
11	48	45	48	45	41	42	40	176	350	95	62	64
12	48	44	48	45	41	42	38	172	338	90	64	59
13	49	43	46	46	44	40	36	161	317	88	59	55
14	48	42	43	47	45	42	38	161	304	86	59	52
15	47	43	45	47	46	43	39	171	289	84	60	57
16	47	44	47	47	45	43	40	160	261	82	58	52
17	46	44	45	47	45	42	42	152	239	80	57	50
18	48	47	45	47	45	42	44	152	250	79	57	52
19	48	48	45	47	46	43	47	153	257	78	55	51
20	49	50	44	47	45	43	53	171	235	80	54	50
21	52	47	45	44	42	43	65	226	226	78	53	49
22	49	39	46	41	42	43	72	282	216	78	52	49
23	48	38	45	39	40	43	79	353	200	77	51	51
24	47	39	42	39	40	42	80	361	191	76	52	53
25	47	41	45	42	38	44	77	345	188	74	52	48
26	47	44	45	43	40	42	77	304	185	71	51	51
27	46	46	46	45	41	43	78	271	179	69	50	51
28	46	41	45	46	42	43	78	268	175	69	50	48
29	46	38	40	48	44	43	82	278	167	69	50	47
30	47	37	39	48	---	42	89	276	160	65	49	51
31	47	---	39	46	---	43	---	271	---	64	48	---
TOTAL	1474	1305	1374	1380	1251	1331	1603	6140	7442	2919	1787	1503
MEAN	47.5	43.5	44.3	44.5	43.1	42.9	53.4	198	248	94.2	57.6	50.1
MAX	52	50	48	48	46	45	89	361	350	156	67	64
MIN	46	37	37	39	38	40	36	95	150	64	48	43
AC-FT	2920	2590	2730	2740	2480	2640	3180	12180	14760	5790	3540	2980

CAL YR 1979 TOTAL 48460 MEAN 133 MAX 676 MIN 28 AC-FT 96120
WTR YR 1980 TOTAL 29509 MEAN 80.6 MAX 361 MIN 36 AC-FT 58530

RIO GRANDE BASIN
08266820 RED RIVER BELOW FISH HATCHERY, NEAR QUESTA, NM

PERIOD OF RECORD.--Water years 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 water year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
OCT 25...	1405	47	427	8.0	14.0	12.0	8.1	8.0	170	97	55	8.9
DEC 05...	0840	46	600	7.6	-3.0	5.0	2.0	8.0	320	240	110	11
JAN 09...	1130	46	650	7.8	28.0	5.0	--	8.8	290	210	97	11
FEB 14...	1800	45	615	7.6	2.0	8.0	3.4	8.6	280	180	92	11
APR 03...	1330	39	616	8.1	5.0	12.0	2.8	7.6	270	190	88	11
27...	1620	76	522	8.1	19.0	12.0	6.6	8.2	220	160	74	9.4
JUN 05...	0800	264	280	7.9	13.0	7.0	13	8.8	85	40	27	4.2
JUL 08...	1900	121	325	8.0	20.0	16.0	2.1	8.8	130	71	43	6.1
AUG 13...	1400	63	380	7.8	25.0	19.0	17	8.0	160	81	49	7.9
SEP 09...	1630	47	440	8.2	--	15.0	40	8.4	190	110	59	9.3

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 (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LITY (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 CONSTITUENTS, DIS- SOLVED (MG/L) (70301)
OCT 25...	18	.6	2.9	94	0	77	130	5.9	.9	21	278	290
DEC 05...	20	.5	4.3	94	0	77	280	5.6	1.1	17	496	497
JAN 09...	22	.6	5.0	90	0	74	240	6.4	1.1	20	--	406
FEB 14...	22	.6	4.7	110	0	90	230	6.9	1.1	20	427	444
APR 03...	24	.6	4.9	90	0	74	220	7.1	1.1	21	448	423
27...	17	.5	3.2	80	0	66	170	5.4	1.0	18	360	339
JUN 05...	5.9	.3	1.1	66	0	54	43	1.8	.3	12	133	123
JUL 08...	8.2	.3	2.0	78	0	64	77	3.3	.8	12	215	190
AUG 13...	15	.5	2.8	88	0	74	110	5.0	.9	19	269	255
SEP 09...	20	.6	3.8	100	0	74	140	6.3	1.0	22	284	307

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, ORTHOPH- SPHATE DISSOL. (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)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT 25...	.18	.18	.110	.99	1.3	.050	.010	--	<10	130	--	.00
DEC 05...	.21	.22	.000	.45	.66	.020	.000	--	<10	190	2.1	.03
JAN 09...	.35	.73	.080	.72	1.2	.050	.010	--	<10	200	2.6	--
FEB 14...	.31	.31	.170	.44	.92	.070	.010	--	<10	200	2.2	--
APR 03...	.28	.27	.250	.37	.90	.060	.010	--	10	150	2.5	--
27...	.22	.22	.150	.44	.81	.080	.030	--	<10	190	3.4	.003A
JUN 05...	.11	.15	.060	.52	.69	.050	.020	--	50	70	4.9	.00
JUL 08...	.06	.09	.060	.62	.74	.030	.000	--	20	110	--	.00
AUG 13...	.19	.21	.090	.28	.56	.080	.010	--	<10	130	3.5	--
SEP 09...	.19	.22	.080	.75	1.0	.150	.010	20	<10	30	6.7	.01

A RESULTS OF CUSTOM ANALYSIS (NONSTANDARD METHODS AND TECHNIQUES USED),
ALTERNATE ULTRAVIOLET DIGESTION METHOD OF ANALYSIS GAVE RESULTS OF
.006 MG/L FOR TOTAL CYANIDE.
CYANIDE DISSOLVED (MG/L) AS CN (00723) .002 MG/L.
ALTERNATE ULTRAVIOLET DIGESTION METHOD OF ANALYSIS GAVE RESULTS OF
.002 MG/L FOR DISSOLVED CYANIDE.

08266820 RED RIVER BELOW FISH HATCHERY, NEAR QUESTA, NM

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	BORON, DIS- SOLVED (UG/L AS B) (01020)	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 25...	1405	--	0	<10	130	100	120	20	10
DEC 05...	0840	--	0	<10	190	260	250	30	20
JAN 09...	1130	--	0	<10	200	310	270	20	20
FEB 14...	1800	--	0	<10	200	290	260	40	20
APR 03...	1330	--	0	10	150	310	270	20	20
27...	1620	--	0	<10	190	230	220	40	10
JUN 05...	0800	--	0	50	70	14	46	40	20
JUL 08...	1900	--	0	20	110	82	82	30	10
AUG 13...	1400	--	0	<10	130	150	150	40	10
SEP 09...	1630	20	0	<10	30	160	200	40	<3

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
APR 27...	1620	4
JUN 05...	0800	18
JUL 08...	1900	20
AUG 13...	1400	32
SEP 09...	1630	31

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT 16...	1510	49	13.5	216	29
25...	1405	47	12.0	39	4.9
JAN 09...	1130	46	5.0	2	.25
FEB 14...	1800	45	8.0	22	2.7
APR 03...	1330	39	12.0	5	.53
27...	1620	76	12.0	25	5.1
JUN 05...	0800	264	7.0	111	79
AUG 13...	1400	63	19.0	34	5.8

08267000 RED RIVER AT MOUTH, NEAR QUESTA, NM

LOCATION.--Lat 36°38'53", long 105°41'34", in SW¼NW¼ sec. 20, T.28N., R.12E., Taos County, Hydrologic Unit 13020101, in Carson National Forest, 250 ft (76 m) upstream from Rio Grande, and 6.5 mi (10.5 Km) southwest of Questa.

DRAINAGE AREA.--190 mi² (492 Km²).

PERIOD OF RECORD.--Water years 1966-69, 1979 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SPE-												
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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 23...	1500	60	396	8.3	19.0	12.0	2.2	10.0	150	76	47	8.2
FEB 11...	1600	67	584	8.0	4.0	8.0	2.5	8.6	250	200	84	9.7
APR 04...	1550	61	541	8.8	14.0	14.0	1.3	9.0	220	140	74	9.5
29...	1115	90	476	8.4	20.0	10.0	5.1	9.4	190	120	63	8.4
JUN 04...	1045	235	275	8.2	24.0	10.0	17	10.6	--	--	--	--
AUG 15...	1430	70	375	8.5	--	17.0	15	7.0	150	80	49	7.6
SEP 17...	1200	67	470	8.3	--	15.0	2.6	--	200	130	65	8.9
DATE		SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY 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 23...	18	.6	2.7	92	0	75	110	6.1	1.0	22	262	
FEB 11...	20	.6	4.6	20	0	53	210	7.1	1.2	22	393	
APR 04...	23	.7	4.3	86	6	81	180	6.9	1.1	23	372	
29...	17	.5	3.0	80	2	69	140	5.5	1.0	19	299	
JUN 04...	--	--	--	--	--	48	44	1.9	.4	--	76	
AUG 15...	17	.6	3.2	94	2	74	110	5.6	1.0	21	260	
SEP 17...	21	.6	4.0	--	--	74	160	6.4	1.1	23	335	
DATE		NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, 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, ORTHOPH- OSPHATE DISSOL. (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 23...	.24	.23	.000	.55	.79	.030	.010	<10	90	3.6	.00	
FEB 11...	.36	.38	.020	.98	1.4	.060	.010	10	110	--	--	
APR 04...	.33	.32	.020	.29	.64	.040	.010	<10	80	4.8	.00	
29...	.23	.23	.060	.40	.69	.050	.040	10	120	3.1	.00	
JUN 04...	.12	.13	.030	.41	.56	.050	.010	--	--	4.5	.00	
AUG 15...	.26	.26	.020	.39	.67	.070	.010	<10	70	4.0	--	
SEP 17...	.22	.09	.000	.36	.58	.060	.010	20	40	1.7	--	

08267000 RED RIVER AT MOUTH, NEAR QUESTA, NM

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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, TOTAL RECOV- ERABLE (UG/L AS MO) (01060)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
OCT 23...	1500	0	<10	90	85	95	30	8
FEB 11...	1600	0	10	110	32	230	40	5
APR 04...	1550	0	<10	80	210	220	10	9
29...	1115	0	10	120	180	180	30	3
JUN 04...	1045	0	--	--	12	--	30	--
AUG 15...	1430	0	<10	70	150	150	30	7
SEP 17...	1200	0	20	40	210	230	40	4

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
APR 29...	1115	3
JUN 04...	1045	14
AUG 15...	1430	29

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 23...	1500	60	12.0	11	1.8
APR 04...	1550	61	14.0	5	.82
29...	1115	90	10.0	16	3.9
AUG 15...	1430	70	17.0	25	4.7

RIO GRANDE BASIN

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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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 25...	0945	204	358	7.9	2.5	8.0	3.5	8.0	120	21	35	7.7
DEC 05...	1130	283	330	8.0	7.0	5.0	1.9	9.6	110	23	35	6.2
FEB 15...	1350	488	249	7.3	12.0	7.0	8.1	9.7	93	28	29	4.9
APR 03...	1000	521	280	8.2	3.0	5.0	4.9	9.2	94	16	29	5.3
27...	1200	1480	159	8.0	15.0	7.0	23	9.0	55	17	17	3.1
JUN 03...	1415	3060	154	8.2	27.0	14.0	18	8.8	53	7	16	3.1
JUL 08...	1300	1180	190	8.2	30.0	20.0	8.3	9.0	69	16	21	4.1
AUG 13...	1000	475	168	8.0	21.0	18.0	15	7.4	60	3	18	3.6
SEP 08...	1400	165	250	8.5	--	18.0	1.5	8.8	93	11	27	6.2

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 (MG/L) AS (HCO3) (00440)	CAR- BONATE (MG/L) AS CO3 (00445)	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N (00630)
OCT 25...	26	1.0	3.9	120	0	98	68	7.5	.8	28	237	.19
DEC 05...	19	.8	3.6	110	0	90	59	5.3	.6	31	215	.31
FEB 15...	14	.6	3.8	79	0	65	46	4.5	.5	28	172	.40
APR 03...	17	.8	3.3	96	0	79	50	5.0	.4	28	107	.27
27...	8.4	.5	2.0	56	0	46	25	2.2	.3	22	105	.21
JUN 03...	8.3	.5	2.0	--	--	46	21	2.1	.1	20	101	.06
JUL 08...	13	.7	2.6	70	0	57	37	3.2	.5	21	134	.01
AUG 13...	11	.6	2.6	70	0	57	26	4.5	.4	23	124	.07
SEP 08...	18	.8	3.3	110	4	82	39	5.7	.8	30	180	.13

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)	NITRO- GEN, TOTAL (MG/L) AS N (00600)	PHOS- PHORUS, TOTAL (MG/L) AS P (00665)	PHOS- PHORUS, ORTHOPH OSPHATE DISSOL. (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)	SAMPLE SOURCE (72005)
OCT 25...	.26	.020	.42	.63	.040	.010	<10	10	2.1	.00	--
DEC 05...	.32	.020	.38	.71	.040	.040	10	20	4.7	.00	29
FEB 15...	.42	.040	.52	.96	.120	.130	60	20	4.5	--	--
APR 03...	.24	.060	.39	.72	.110	.070	20	10	3.4	.00	--
27...	.40	.060	.84	1.1	.150	.040	60	8	6.7	.00	--
JUN 03...	.06	.060	1.0	1.2	.120	.040	110	10	6.0	.00	--
JUL 08...	.01	.020	.86	.89	.110	.060	80	10	4.9	.00	--
AUG 13...	.09	.020	.30	.39	.100	.020	40	20	4.5	.00	--
SEP 08...	.16	.000	.46	.59	.030	.010	10	3	1.2	.01	--

08267400. RIO GRANDE ABOVE RIO HONDO AT DUNN BRIDGE, NM

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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, TOTAL DIS- SOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOV- ERABLE (UG/L AS 2N) (01092)	ZINC, DIS- SOLVED (UG/L AS 2N) (01090)	SAMPLE SOURCE (72005)
OCT 25...	0945	0	<10	10	28	31	10	7	--
DEC 05...	1130	0	10	20	3	40	0	<3	29
FEB 15...	1350	1	60	20	25	28	30	<3	--
APR 03...	1000	0	20	10	23	28	40	<3	--
27...	1200	0	60	8	11	13	30	<3	--
JUN 03...	1415	0	110	10	0	<10	40	7	--
JUL 08...	1300	0	80	10	9	<10	20	5	--
AUG 13...	1000	0	40	20	15	21	20	8	--
SEP 08...	1400	0	10	3	31	33	10	<3	--

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
APR 27...	1200	14
JUN 03...	1415	33
JUL 08...	1300	20
AUG 13...	1000	13
SEP 08...	1400	3

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SAMPLE SOURCE (72005)
OCT 25...	0945	204	8.0	12	6.6	--
DEC 05...	1130	283	5.0	7	5.3	29
FEB 15...	1350	488	7.0	27	36	--
APR 03...	1000	521	5.0	93	131	--
27...	1200	1480	7.0	33	132	--
AUG 13...	1000	475	18.0	21	27	--

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 mi² (93.8 km²).

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 fair. No diversions above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--46 years, 34.3 ft³/s (0.971 m³/s), 24,850 acre-ft/yr (30.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 541 ft³/s (15.3 m³/s) May 13, 1941; maximum gage height, 4.81 ft (1.466 m) Jan. 5, 1970 (ice jam); minimum discharge, about 1 ft³/s (0.03 m³/s) Jan. 27, 1942, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 80 ft³/s (2.3 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 8	0230	90 2.55	2.59 0.789	June 11	2345	*278 7.87	3.76 1.146
May 23	2400	194 5.49	3.29 1.003				

Minimum discharge, 8.0 ft³/s (0.23 m³/s) Jan. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	17	11	10	10	13	12	46	155	118	32	21
2	19	16	11	11	10	13	13	42	154	107	32	21
3	19	17	12	10	11	13	14	43	152	100	33	20
4	19	17	12	10	11	13	12	49	157	92	32	20
5	18	17	12	11	11	12	14	64	167	85	31	19
6	18	17	12	11	11	12	15	70	178	82	31	20
7	18	17	12	11	11	12	15	75	182	79	31	21
8	18	18	12	11	10	11	17	88	177	74	32	20
9	18	18	12	11	10	11	17	88	217	71	32	21
10	19	18	13	11	10	12	19	86	249	65	29	27
11	18	18	13	12	10	12	21	86	261	61	31	24
12	18	16	13	12	11	11	20	80	268	57	31	21
13	17	15	13	12	11	12	19	70	263	54	29	20
14	17	16	12	12	11	13	18	65	254	51	30	19
15	17	16	14	12	11	13	20	66	244	49	30	19
16	17	17	14	12	10	14	26	61	224	48	28	18
17	17	17	14	12	10	13	31	59	213	47	27	18
18	18	17	14	12	11	13	33	65	208	46	26	18
19	17	17	14	11	11	14	37	76	201	46	26	18
20	17	17	14	12	11	14	45	97	180	44	25	19
21	20	16	14	11	11	15	49	129	168	43	24	19
22	18	13	14	10	11	17	53	169	161	42	24	19
23	18	10	14	10	10	16	59	183	161	41	24	19
24	18	11	13	10	10	15	51	183	157	38	24	18
25	19	12	14	11	10	15	44	167	156	36	25	18
26	18	14	15	11	10	14	36	148	150	35	24	17
27	18	14	15	11	11	14	34	140	146	34	24	18
28	17	12	14	10	12	13	34	141	140	33	23	18
29	18	10	12	10	13	13	40	149	132	33	23	17
30	18	10	11	11	---	13	47	149	126	33	22	17
31	17	---	10	11	---	13	---	152	---	32	21	---
TOTAL	557	460	400	342	310	409	865	3086	5601	1776	856	584
MEAN	18.0	15.3	12.9	11.0	10.7	13.2	28.8	99.5	187	57.3	27.6	19.5
MAX	20	18	15	12	13	17	59	183	268	118	33	27
MIN	10	10	10	10	10	11	12	42	126	32	21	17
AC-FT	1100	912	793	678	615	811	1720	6120	11110	3520	1700	1160
CAL YR 1979	TOTAL	24928.2	MEAN 68.3	MAX 356	MIN 5.0	AC-FT	49450					
WTR YR 1980	TOTAL	15246.0	MEAN 41.7	MAX 268	MIN 10	AC-FT	30240					

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 mi² (169.9 km²).

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 fair. Diversions above station for irrigation of about 2,500 acres (10 km²).
AVERAGE DISCHARGE.--64 years (water years 1913-28, 1933-80), 26.9 ft³/s (0.762 m³/s), 19,490 acre-ft/yr (24.0 hm³/yr).
EXTREMES FOR PERIOD OF RECORD (SINCE 1937).--Maximum discharge, 1,060 ft³/s (30.0 m³/s) July 19, 1948, gage height, 3.75 ft (1.143 m), from rating curve extended above 200 ft³/s (5.7 m³/s); maximum gage height, 5.06 ft (1.542 m) June 8, 1979, backwater from debris; minimum discharge, 3.3 ft³/s (0.093 m³/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 ft³/s (34 m³/s). A minimum daily discharge of 3 ft³/s (0.08 m³/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.--Peak discharges above base of 75 ft³/s (2.1 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 8	0930	97 2.75	3.14 0.957	June 13	0945	*198 5.61	3.74 1.140
May 23	0615	164 4.64	3.53 1.076				

Minimum discharge, 5.7 ft³/s (0.16 m³/s) Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	9.7	20	20	19	19	16	48	96	69	9.4	8.4
2	11	9.4	22	21	18	19	18	46	96	66	12	8.2
3	10	9.4	25	19	19	19	17	45	91	64	11	8.3
4	10	10	25	19	19	19	17	52	95	59	9.4	8.1
5	10	10	23	20	19	18	18	63	102	56	9.8	8.5
6	10	12	23	20	19	17	18	70	109	54	11	9.4
7	10	16	23	21	19	17	19	73	113	48	10	9.3
8	10	18	23	21	19	17	19	91	111	36	9.9	9.8
9	10	18	23	21	16	17	18	91	132	34	9.6	10
10	10	17	22	22	16	17	20	86	155	32	8.9	13
11	10	16	23	21	18	18	22	87	179	30	9.6	11
12	10	15	24	22	18	17	22	77	188	27	11	9.1
13	10	14	23	22	19	16	21	66	182	26	9.4	8.7
14	10	15	21	22	19	17	21	64	176	25	10	8.6
15	10	14	22	22	20	18	23	69	168	20	10	8.5
16	10	15	23	21	19	19	26	65	157	14	9.4	8.2
17	10	17	23	21	19	17	28	59	147	12	8.7	8.1
18	11	17	23	21	19	17	32	59	144	12	8.7	7.9
19	10	18	23	21	20	18	36	64	140	12	9.4	7.4
20	10	18	23	21	19	18	42	71	128	12	9.4	7.3
21	13	18	22	19	19	19	48	87	118	12	9.4	7.0
22	11	20	23	18	19	20	50	122	110	16	9.1	7.1
23	10	21	22	15	18	21	57	157	106	11	8.7	7.2
24	10	22	21	18	17	20	56	156	107	10	8.7	7.3
25	10	24	22	21	17	20	49	147	105	9.0	8.9	7.0
26	10	24	22	21	17	19	43	128	95	9.7	8.8	7.0
27	9.7	24	23	19	18	19	39	113	91	9.3	9.7	6.9
28	9.7	20	22	19	19	18	39	109	83	9.4	9.2	7.3
29	10	17	18	20	19	18	42	105	79	8.7	8.6	7.5
30	10	18	18	20	---	17	49	98	75	9.4	8.7	7.5
31	10	---	17	20	---	17	---	91	---	11	8.4	---
TOTAL	315.4	496.5	687	627	536	562	925	2659	3678	823.5	294.8	249.6
MEAN	10.2	16.6	22.2	20.2	18.5	18.1	30.8	85.8	123	26.6	9.51	8.32
MAX	13	24	25	22	20	21	57	157	188	69	12	13
MIN	9.7	9.4	17	15	16	16	16	45	75	8.7	8.4	6.9
AC-FT	626	985	1360	1240	1060	1110	1830	5270	7300	1630	585	495

CAL YR 1979 TOTAL 23484.7 MEAN 64.3 MAX 415 MIN 6.8 AC-FT 46580
WTR YR 1980 TOTAL 11853.8 MEAN 32.4 MAX 188 MIN 6.9 AC-FT 23510

RIO GRANDE BASIN

08268500 ARROYO HONDO AT ARROYO HONDO, NM

WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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) (00902)	CALCIUM DIS- SOLVED (MG/L AS Ca) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg) (00925)
OCT 25...	0910	10	386	8.3	2.5	5.0	.60	10.2	160	8	51	8.8
FEB 15...	1440	20	247	8.1	12.0	7.0	1.5	9.4	110	0	35	5.0
APR 03...	1045	21	270	8.7	3.0	5.0	2.1	9.8	120	7	37	5.5
27...	1330	37	204	8.4	15.0	10.0	4.1	8.4	89	20	29	4.0
JUN 03...	1330	87	140	8.4	27.0	12.0	2.8	10.2	57	8	19	2.4
AUG 13...	1100	10	370	8.5	21.0	19.0	1.5	8.0	170	7	52	8.9
SEP 08...	1615	9.4	340	8.5	--	19.0	1.0	8.2	160	1	50	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 AS HCO3) (00440)	CAR- BONATE AS CO3) (00445)	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT 25...	16	.5	2.1	190	0	156	33	7.1	.4	19	234	.72
FEB 15...	8.5	.4	1.3	140	0	115	20	3.4	.3	12	157	.52
APR 03...	9.5	.4	1.2	120	6	108	23	5.8	.2	13	98	.56
27...	7.0	.3	.9	90	2	77	18	4.2	.3	11	117	.24
JUN 03...	3.6	.2	.8	--	--	49	10	2.0	.2	9.3	78	.25
AUG 13...	17	.6	2.0	200	6	160	23	7.2	.4	21	228	.79
SEP 08...	17	.6	2.1	200	6	160	26	6.6	.4	21	231	.51

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)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHOPH DISSOL. (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)	SAMPLE SOURCE (72005)
OCT 25...	.70	.000	.62	1.3	.010	.000	10	6	--	.00	29
FEB 15...	.52	.000	.37	.89	.020	.010	10	10	2.6	--	--
APR 03...	.56	.020	.39	.97	.030	.010	<10	10	4.9	.00	--
27...	.25	.040	.39	.67	.030	.030	10	8	2.3	.00	--
JUN 03...	.28	.030	1.1	1.4	.060	.040	80	8	4.8	.00	--
AUG 13...	.00	.030	.78	1.6	.020	.000	10	20	7.3	--	--
SEP 08...	.69	.000	.35	.86	.030	.000	10	4	5.6	--	--

08268500 ARROYO HONDO AT ARROYO HONDO, NM

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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, TOTAL RECOV- ERABLE (UG/L AS MO) (01060)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
OCT 25...	0910	0	10	6	7	<10	10	7	29
FEB 15...	1440	0	10	10	6	<10	10	<3	--
APR 03...	1045	0	<10	10	6	<10	0	<3	--
27...	1330	1	10	8	6	<10	20	<3	--
JUN 03...	1330	0	80	8	0	6	60	6	--
AUG 13...	1100	0	10	20	7	7	60	4	--
SEP 08...	1615	0	10	4	7	<10	20	<3	--

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MP (COLS./ 100 ML) (31625)
APR 27...	1330	3
JUN 03...	1330	18
AUG 13...	1100	60
SEP 08...	1615	400

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SAMPLE SOURCE (72005)
OCT 25...	0910	10	5.0	32	.86	29
FEB 15...	1440	20	7.0	15	.81	--
APR 03...	1045	21	5.0	19	1.1	--
27...	1330	37	10.0	30	3.0	--
AUG 13...	1100	10	19.0	23	.62	--

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 mi² (22,690 km²), approximately, including 2,940 mi² (7,610 km²) 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 km²) in Colorado and 15,000 acres (61 km²) in New Mexico. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--17 years, 589 ft³/s (16.68 m³/s), 426,700 acre-ft/yr (526 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,240 ft³/s (177 m³/s) June 11, 1979, gage height, 7.34 ft (2.237 m); minimum, 136 ft³/s (3.85 m³/s) Aug. 2, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,400 ft³/s (40 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 11	0330	2,880 81.6	4.90 1.494	May 26	0200	*3,710 105	5.58 1.701

Minimum daily discharge, 174 ft³/s (4.93 m³/s) Sept. 7, 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	GCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	205	233	253	347	470	577	531	1810	3380	1660	406	214
2	205	229	278	353	460	564	536	1980	3340	1600	416	201
3	202	224	281	363	450	561	538	1950	3160	1580	419	190
4	202	247	290	376	455	554	531	1770	3090	1650	420	183
5	203	277	296	387	464	563	534	1760	3090	1600	388	180
6	203	297	301	395	473	558	522	1970	3210	1540	358	178
7	202	292	311	404	474	551	523	2120	3370	1370	341	176
8	202	285	333	404	470	544	541	2370	3460	1230	369	178
9	201	296	339	409	400	547	560	2570	3440	1250	512	179
10	202	298	343	423	450	534	567	2760	3460	1230	493	197
11	202	294	354	428	470	522	561	2850	3530	1170	490	206
12	201	305	367	425	470	523	556	2720	3670	1090	501	198
13	201	284	369	435	467	512	560	2690	3620	917	477	195
14	200	279	357	447	473	511	594	2540	3390	859	453	263
15	198	273	356	464	540	513	586	2270	2880	780	430	345
16	198	270	357	466	506	508	567	2360	2650	730	412	285
17	197	274	363	468	508	512	565	2350	2450	661	342	241
18	202	286	365	487	525	517	621	2140	2370	615	280	221
19	201	301	357	487	558	526	708	2010	2310	569	250	209
20	203	308	353	473	590	508	805	2130	2260	495	232	201
21	212	265	360	483	593	504	1060	2370	2320	458	222	191
22	209	225	372	470	580	504	1290	2680	2300	460	213	187
23	213	253	371	426	564	522	1500	3080	2120	465	205	187
24	215	240	376	420	550	526	1590	3420	2000	472	203	189
25	215	234	359	438	528	545	1720	3590	1940	431	208	183
26	235	253	361	452	514	559	1720	3620	1880	420	213	187
27	244	262	373	453	522	554	1540	3370	1850	499	219	185
28	240	255	374	471	539	559	1450	3030	1880	503	276	183
29	240	247	338	470	561	559	1480	3010	1850	462	297	180
30	239	255	337	454	---	559	1570	3070	1780	442	256	186
31	235	---	344	448	---	540	---	3200	---	444	234	---
TOTAL	6527	8036	10588	13421	14624	16636	26426	79560	82050	27652	10535	6098
MEAN	211	268	342	433	504	537	881	2566	2735	892	340	203
MAX	244	308	376	487	593	577	1720	3620	3670	1660	512	345
MIN	197	224	253	347	400	504	522	1760	1780	420	203	176
AC-FT	17950	15040	21000	26620	29010	33000	52420	157800	162700	54850	20900	12100
CAL YR 1979 TOTAL	429624			MEAN 1177	MAX 6040	MIN 197	AC-FT 852200					
WTR YR 1980 TOTAL	302153			MEAN 826	MAX 3670	MIN 176	AC-FT 599300					

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 mi² (172.5 km²).
 PERIOD OF RECORD.--January 1911 to December 1916, January 1940 to December 1951, annual maximum, water years 1952-62, October 1962 (mon. hly 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.--35 years (water years 1911-16, 1941-51, 1963-80), 28.6 ft³/s (0.810 m³/s), 20,720 acre-ft/yr (25.5 hm³/yr).
 EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,050 ft³/s (29.7 m³/s) May 26, 1979, gage height, 3.42 ft (1.042 m), from rating curve extended above 370 ft³/s (10 m³/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 ft³/s (0.03 m³/s) Jan. 9, 1964, result of freezeup.
 EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 60 ft³/s (1.7 m³/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. 23	0245	135	3.82	1.59	0.485	May 24	0315	*372	10.5	2.23	0.680
Apr. 30	1700	111	3.14	1.50	.457	June 10	2345	271	7.67	1.99	.607
May 8	2400	303	8.58	2.11	.643						

Minimum discharge, 4.4 ft³/s (0.12 m³/s) Jan. 21, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	11	7.5	8.5	8.0	12	10	94	190	61	19	9.6
2	11	11	8.0	9.3	8.0	12	11	85	185	56	18	9.4
3	10	11	9.0	8.5	8.3	12	11	97	178	52	18	9.2
4	10	12	9.5	8.0	8.2	12	11	125	179	49	18	9.0
5	10	11	10	8.0	8.5	11	13	154	182	46	16	9.1
6	10	11	10	8.0	9.5	11	16	177	188	43	16	9.8
7	10	12	10	8.0	9.7	11	16	190	186	42	17	11
8	10	13	9.9	8.0	9.5	10	17	265	179	41	17	11
9	10	13	9.9	7.9	9.0	10	18	269	204	39	19	12
10	10	12	9.9	8.3	8.0	10	22	246	236	36	16	15
11	10	11	10	8.6	8.5	11	28	232	251	34	16	14
12	9.9	10	10	8.9	8.5	11	22	201	236	33	15	11
13	9.6	9.6	9.8	8.8	9.0	10	19	166	201	31	16	11
14	9.6	11	9.5	8.8	9.4	11	18	151	182	30	15	10
15	9.6	11	10	9.2	10	12	21	155	172	28	16	11
16	9.6	11	9.8	8.8	10	13	33	147	157	26	14	10
17	9.7	11	9.0	8.4	9.7	12	42	156	151	25	13	10
18	12	12	9.0	8.4	9.9	11	51	187	150	24	13	9.8
19	11	12	9.5	8.4	11	11	67	214	147	24	12	9.6
20	10	11	9.5	8.4	10	12	80	262	134	23	12	9.3
21	12	10	9.8	6.6	9.6	14	88	290	121	23	11	9.0
22	12	7.5	9.7	6.0	9.7	16	98	347	111	23	12	9.0
23	12	8.5	9.7	5.5	8.8	15	118	345	100	24	12	9.1
24	12	9.5	9.5	6.0	9.0	13	104	324	94	23	13	9.0
25	12	11	9.4	7.0	9.0	13	78	292	90	22	15	9.0
26	11	11	9.0	8.0	9.5	12	59	256	85	20	12	9.1
27	11	11	9.3	8.1	9.9	12	55	208	80	20	11	9.2
28	11	8.0	9.4	7.9	11	12	67	198	75	18	11	9.7
29	11	7.5	9.0	8.2	11	11	93	203	71	18	11	9.5
30	11	7.0	8.5	7.7	---	11	103	196	65	17	10	9.3
31	11	---	8.0	7.5	---	11	---	193	---	19	9.9	---
TOTAL	329.0	317.6	291.1	247.7	270.2	365	1389	6425	4580	970	443.9	302.7
MEAN	10.6	10.6	9.39	7.99	9.32	11.8	46.3	207	153	31.3	14.3	10.1
MAX	12	13	10	9.3	11	16	118	347	251	61	19	15
MIN	9.6	7.0	7.5	5.5	8.0	10	10	85	65	17	9.9	9.0
AC-FT	653	630	577	491	536	724	2760	12740	9080	1920	880	600
CAL. YR 1979	TOTAL	26653.3	MEAN	73.0	MAX	926	MIN	4.0	AC-FT	52870		
WTR YR 1980	TOTAL	15931.2	MEAN	43.5	MAX	347	MIN	5.5	AC-FT	31600		

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 mi² (43.0 km²).

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 except those for winter period and those above 125 ft³/s (3.5 m³/s), which are fair. No diversions above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years (water years 1911-15, 1934-51, 1963-80), 21.7 ft³/s (0.615 m³/s), 15,720 acre-ft/yr (19.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 310 ft³/s (8.78 m³/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 ft³/s (0.04 m³/s) Nov. 2, 1951, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 70 ft³/s (2.0 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 23	2045	109 3.09	1.77 0.539	June 11	2045	*216 6.12	2.18 0.664

Minimum discharge, 3.3 ft³/s (0.093 m³/s) Nov. 12, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	7.9	5.5	6.0	4.9	6.5	5.9	24	88	71	18	10
2	9.6	7.1	5.5	5.9	4.9	6.5	6.2	23	85	64	18	9.8
3	9.5	7.5	6.0	5.9	4.9	6.5	6.2	25	85	58	18	9.6
4	9.5	7.5	6.5	5.9	5.1	6.5	6.7	31	90	53	17	9.5
5	9.3	6.6	6.5	5.9	5.1	6.2	7.7	34	96	49	16	9.7
6	9.6	6.5	7.0	5.9	5.2	6.2	8.3	35	97	45	17	9.9
7	9.5	7.1	7.0	5.9	5.3	6.1	8.5	36	94	43	17	10
8	9.3	7.2	7.2	5.9	5.3	5.9	8.5	42	96	41	17	11
9	9.2	7.3	6.8	5.9	5.1	5.8	8.6	42	139	40	18	12
10	9.2	7.0	6.4	5.7	5.1	5.8	10	39	171	36	16	17
11	9.1	6.8	6.8	5.9	5.0	5.8	11	37	191	35	16	13
12	9.1	5.5	6.9	5.9	5.0	5.7	9.6	33	183	32	16	11
13	9.0	6.5	6.3	6.0	5.0	5.7	8.6	29	170	31	16	11
14	9.4	6.7	6.2	5.9	5.1	6.0	8.8	27	147	30	16	11
15	9.3	6.8	6.2	5.9	5.1	6.3	10	28	128	28	16	11
16	9.2	6.7	6.2	5.6	5.0	6.5	14	27	112	27	15	10
17	9.3	7.0	6.4	5.3	5.0	6.6	18	27	113	26	14	10
18	9.5	8.0	6.4	5.5	5.1	6.8	23	29	118	26	14	9.9
19	8.7	7.2	6.4	5.4	5.1	6.9	30	35	125	27	14	9.6
20	8.9	6.4	6.4	5.3	5.4	6.8	35	47	125	25	13	9.4
21	9.3	6.3	6.4	5.2	5.4	7.5	39	70	121	26	13	9.3
22	8.2	6.0	6.6	4.5	5.3	8.5	40	97	113	25	13	9.1
23	9.1	5.5	6.5	4.0	5.1	8.1	40	104	110	24	13	9.1
24	9.1	6.0	6.2	5.0	4.8	7.5	33	106	109	24	13	8.9
25	8.8	6.2	6.2	5.4	4.5	7.3	25	98	108	22	14	9.2
26	9.0	6.5	6.2	5.3	5.0	7.0	20	80	101	21	12	9.2
27	8.6	6.5	6.2	5.3	5.3	6.9	19	69	100	20	12	9.2
28	8.1	6.0	6.1	5.3	6.0	6.5	22	74	93	20	12	9.5
29	8.0	5.0	6.1	5.2	6.5	6.2	25	84	85	19	11	9.1
30	7.3	5.0	6.1	5.2	---	6.1	25	83	80	19	11	8.7
31	7.4	---	6.0	4.8	---	5.9	---	84	---	19	10	---
TOTAL	278.9	198.3	197.2	170.8	149.6	202.6	532.6	1599	3473	1026	456	305.7
MEAN	9.00	6.61	6.36	5.51	5.16	6.54	17.8	51.6	116	33.1	14.7	10.2
MAX	9.8	8.0	7.2	6.0	6.5	8.5	40	106	191	71	18	17
MIN	7.3	5.0	5.5	4.0	4.5	5.7	5.9	23	80	19	10	8.7
AC-FT	553	393	391	339	297	402	1060	3170	6890	2040	904	606

CAL YR 1979 TOTAL 13397.2 MEAN 36.7 MAX 245 MIN 4.0 AC-FT 26570
WTR YR 1980 TOTAL 8589.7 MEAN 23.5 MAX 191 MIN 4.0 AC-FT 17040

08275000 RIO FERNANDO DE TAOS NEAR TAOS, NM

LOCATION.--Lat 36°22'32", long 105°32'55", in W $\frac{1}{2}$ NW $\frac{1}{4}$ sec.27, T.25 N., R.13 E., Taos County, Hydrologic Unit 13020101, in Carson National Forest, on right bank 175 ft (53 m) upstream from Acequia Madre del Norte del Canon, 2.5 mi (4.0 km) southeast of Taos, and at mile 5.0 (8.0 km).

DRAINAGE AREA.--71.7 mi² (185.7 km²).

PERIOD OF RECORD.--April to September 1910 (gage heights and discharge measurements only), October 1910 to June 1911 (discharge measurements only), October 1912 to September 1917, October 1927 to December 1928, October to November 1962 (monthly discharge only), December 1962 to September 1980 (discontinued).

REVISED RECORDS.--WSP 1512; 1914-15. WSP 1923: Drainage area.

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

REMARKS.--Records good. A few very small diversions above station for irrigation. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--24 years (water years 1913-17, 1928, 1963-80), 6.78 ft³/s (0.192 m³/s), 4,910 acre-ft/yr (6.05 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1962).--Maximum discharge, 219 ft³/s (6.20 m³/s) May 13, 1973, gage height, 2.38 ft (0.725 m); minimum, 0.02 ft³/s (0.001 m³/s) part or all of each day Jan. 14-18, 1967, Sept. 15-19, 1972, Sept. 2, 4, 5, 8-13, 16, 19, Oct. 7, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood of undetermined magnitude occurred July 21, 1921.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 25 ft³/s (0.7 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 25	0945	al28 3.62	1.90 0.579	May 8	0515	*151 4.28	2.05 0.625
Apr. 23	0015	45 1.27	1.30 .396	May 18	0200	138 3.91	1.98 .604

a Result of temporary regulation.

Minimum discharge, 1.0 ft³/s (0.028 m³/s) Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	4.4	2.8	3.5	3.5	5.1	3.9	55	43	7.9	4.0	2.5
2	2.7	4.3	3.1	3.5	3.5	4.7	5.3	52	39	7.8	3.8	2.4
3	2.6	4.3	3.6	3.3	4.0	5.1	4.8	56	37	7.4	4.8	2.1
4	2.6	4.6	4.3	3.3	4.1	5.3	5.0	61	34	7.0	4.4	2.0
5	2.9	4.6	4.3	3.6	4.1	5.0	5.7	70	32	6.6	4.0	2.2
6	2.8	4.5	4.3	3.6	4.1	5.0	6.5	95	30	6.4	3.8	2.8
7	2.9	4.9	4.1	3.6	4.3	4.9	5.6	108	28	6.5	4.0	3.1
8	2.9	5.4	4.1	3.6	3.8	4.6	5.5	129	27	6.8	6.7	2.8
9	2.9	5.4	4.1	3.6	3.2	4.7	6.5	121	27	6.1	5.6	3.1
10	3.0	5.2	4.1	3.6	3.1	4.7	8.4	105	24	6.7	5.7	4.1
11	3.0	5.0	4.1	3.7	3.6	5.0	11	102	22	6.2	4.7	4.2
12	3.0	4.6	4.1	3.7	3.6	4.8	10	88	21	5.8	4.4	3.5
13	3.1	4.2	3.9	3.9	4.1	4.2	8.0	72	20	5.8	5.4	3.0
14	3.2	4.4	3.7	4.0	4.1	4.8	7.8	67	19	5.7	5.0	2.9
15	3.2	4.3	3.8	4.4	4.5	5.4	9.1	81	18	5.5	5.0	2.8
16	3.3	4.3	4.1	4.4	4.3	5.6	15	86	17	5.1	4.4	2.6
17	3.9	4.3	4.0	4.3	4.1	5.0	21	108	16	4.7	3.8	2.5
18	4.0	4.7	3.9	4.3	4.4	4.6	26	118	14	4.5	3.6	2.4
19	4.1	4.5	3.8	4.1	5.0	5.2	28	124	14	4.6	3.4	2.2
20	3.8	4.7	3.7	4.1	4.8	5.1	31	125	13	4.4	3.3	1.8
21	4.6	3.9	3.8	3.6	4.5	5.4	30	123	13	4.7	3.1	1.8
22	4.9	2.7	3.8	3.5	4.5	6.1	33	120	12	5.1	3.1	1.7
23	4.8	3.2	3.8	2.5	4.3	5.9	37	118	12	5.2	3.3	1.8
24	5.1	3.3	3.3	2.9	4.2	5.3	33	107	11	5.2	3.3	1.9
25	6.0	4.1	3.8	3.7	3.7	5.6	26	90	10	4.7	4.0	1.9
26	4.3	4.3	3.6	4.0	4.0	5.3	29	81	9.9	4.3	3.5	2.1
27	4.2	4.6	3.6	4.1	4.5	5.4	30	69	9.6	4.3	3.2	2.1
28	4.1	2.9	3.5	3.8	5.2	5.2	42	61	9.1	4.2	3.0	2.0
29	4.1	2.8	3.3	3.9	5.4	5.1	54	53	8.6	4.0	2.8	2.0
30	4.3	2.7	3.4	4.2	---	5.0	54	50	8.3	3.9	2.7	1.9
31	4.2	---	3.3	3.9	---	5.0	---	47	---	4.0	2.6	---
TOTAL	113.2	127.1	117.1	116.2	120.5	158.1	592.1	2742	598.5	171.1	124.4	74.2
MEAN	3.65	4.24	3.78	3.75	4.16	5.10	19.7	88.5	20.0	5.52	4.01	2.47
MAX	6.0	5.4	4.3	4.4	5.4	6.1	54	129	43	7.9	6.7	4.2
MIN	2.6	2.7	2.8	2.5	3.1	4.2	3.9	47	8.3	3.9	2.6	1.7
AC-FT	225	252	232	230	239	314	1170	5440	1190	339	247	147

CAL YR 1979 TOTAL 7435.22 MEAN 20.4 MAX 171 MIN .92 AC-FT 14750
WTR YR 1980 TOTAL 5054.50 MEAN 13.8 MAX 129 MIN 1.7 AC-FT 10030

08275300 RIO PUEBLO DE TAOS NEAR RANCHITO, NM

LOCATION.--Lat 36°23'38", long 105°37'23", Taos County, Hydrologic Unit 13020101, in Gijosa Grant, on left bank 1,100 ft (340 m) downstream from Rio Fernando de Taos, 1.6 mi (2.6 km) southwest of Ranchito, and at mile 7.9 (12.7 km).

DRAINAGE AREA.--199 mi² (515 km²).

PERIOD OF RECORD.--March 1957 to September 1980 (discontinued).

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

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 9,000 acres (36 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--23 years, 30.7 ft³/s (0.869 m³/s), 22,240 acre-ft/yr (27.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,290 ft³/s (36.5 m³/s) May 26, 1979, gage height, 4.82 ft (1.469 m); minimum, 0.21 ft³/s (0.006 m³/s) Aug. 24, 1972, result of regulation.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
May 8	0530	342	9.69	3.16	0.963	June 11	0330	286	8.10	2.99	0.911
May 23	0700	*523	14.8	3.68	1.122						

Minimum discharge, 6.4 ft³/s (0.18 m³/s) July 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	20	18	19	22	24	23	119	206	71	11	8.5
2	9.4	20	20	20	23	23	29	111	197	59	9.7	8.9
3	9.8	20	21	19	23	25	30	117	186	58	12	8.3
4	10	21	22	18	23	26	26	143	185	54	9.8	8.4
5	11	22	22	19	22	24	24	171	194	49	8.2	9.4
6	11	21	22	19	21	22	23	214	200	42	11	10
7	12	25	22	19	22	20	24	234	197	39	13	9.7
8	11	30	21	21	20	19	24	305	188	39	14	9.7
9	11	27	22	21	18	19	27	309	221	34	16	10
10	11	25	23	22	17	20	30	279	243	32	13	14
11	11	24	23	22	18	23	39	264	271	28	16	15
12	11	22	24	23	19	23	38	224	270	28	20	12
13	11	21	22	24	20	19	34	177	249	26	15	11
14	11	22	22	24	21	20	31	159	223	23	16	11
15	11	22	22	27	25	20	29	198	198	19	17	10
16	11	22	23	25	24	20	38	184	177	15	14	10
17	11	22	22	24	22	19	49	181	163	11	11	9.5
18	13	24	21	24	22	17	59	209	158	10	12	9.0
19	13	25	22	25	24	21	78	239	156	9.1	11	8.7
20	13	26	22	25	26	20	93	291	149	8.7	11	8.7
21	18	22	22	22	24	19	97	341	136	9.5	11	8.3
22	17	18	21	21	23	21	96	430	133	16	12	9.0
23	16	20	21	20	21	25	121	482	129	16	14	8.9
24	17	22	21	21	21	26	121	431	123	14	13	8.2
25	17	22	21	22	19	32	109	374	112	13	14	8.8
26	17	24	21	23	21	33	115	304	105	11	13	8.8
27	16	24	21	23	23	34	113	248	100	12	12	8.7
28	17	20	21	22	23	30	98	222	91	8.7	12	8.3
29	18	18	20	25	24	29	112	229	83	7.7	12	8.0
30	19	16	19	29	---	26	119	219	81	10	11	7.5
31	20	---	18	24	---	25	---	206	---	12	10	---
TOTAL	413.8	667	662	692	631	724	1849	7614	5124	784.7	394.7	286.3
MEAN	13.3	22.2	21.4	22.3	21.8	23.4	61.6	246	171	25.3	12.7	9.54
MAX	20	30	24	29	26	34	121	482	271	71	20	15
MIN	9.1	16	18	18	17	17	23	111	81	7.7	8.2	7.5
AC-FT	821	1320	1310	1370	1250	1440	3670	15100	10160	1560	783	568
CAL. YR 1979	TOTAL	40186.0	MEAN	110	MAX	1090	MIN	8.4	AC-FT	79710		
WTR YR 1980	TOTAL	19842.5	MEAN	54.2	MAX	482	MIN	7.5	AC-FT	39360		

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 mi² (210 km²), approximately.

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

GAGE.--Water-stage recorder. Altitude of gage is 7,238 ft (2,206 m), from topographic map. Prior to Nov. 11, 1952, nonrecording gage at site 1,035 ft (320 m) downstream at lower datum. Nov. 11, 1952 to Nov. 5, 1968, water-stage recorder at site 1,000 ft (300 m) downstream at lower datum. Nov. 6, 1968 to Aug. 28, 1980, water-stage recorder at present site on left bank at same datum.

REMARKS.--Records fair. Minor diversions for irrigation above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--28 years, 20.3 ft³/s (0.575 m³/s), 14,710 acre-ft/yr (18.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 497 ft³/s (14.1 m³/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 ft³/s (0.01 m³/s) Jan. 5, 1955, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 60 ft³/s (1.7 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 11	0330	196 5.55	2.37 0.722	May 24	2330	*312 8.84	3.00 0.914

Minimum discharge, 1.6 ft³/s (0.045 m³/s) Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	8.2	6.0	5.5	6.5	7.2	6.3	45	232	36	12	6.9
2	6.6	7.9	7.5	5.6	6.5	6.6	9.3	50	225	35	12	6.6
3	6.4	7.4	7.5	5.0	6.9	7.7	8.5	63	212	33	12	6.4
4	6.4	7.6	7.0	5.0	6.8	7.7	9.1	67	208	31	11	6.2
5	6.5	7.9	7.0	5.5	6.9	7.3	10	88	212	29	11	6.0
6	6.5	7.7	7.0	6.0	6.6	7.3	11	131	213	28	11	8.0
7	6.5	8.1	7.0	7.5	7.0	7.3	11	136	207	28	11	9.0
8	6.4	8.9	7.0	7.0	6.6	6.7	11	163	202	29	14	8.0
9	6.4	9.0	7.0	6.5	5.0	6.8	13	172	224	26	17	8.5
10	6.0	8.8	7.0	7.0	4.4	6.6	15	178	230	26	13	10
11	6.6	8.4	7.0	7.0	6.5	7.4	17	188	222	25	12	11
12	6.5	7.6	7.0	7.3	6.8	7.4	16	172	203	23	11	9.5
13	6.6	6.8	7.0	7.5	6.8	5.4	14	157	176	23	11	9.0
14	6.7	7.2	7.0	8.0	6.8	7.1	14	153	152	22	14	8.5
15	6.0	7.4	7.0	7.6	6.8	7.9	15	164	135	21	13	8.0
16	6.7	7.6	7.0	7.7	7.0	7.9	17	156	118	19	12	7.3
17	6.8	7.5	7.0	7.6	7.2	7.1	20	143	104	18	11	7.2
18	7.6	7.5	7.0	7.5	7.5	6.8	25	145	97	17	10	6.7
19	7.7	7.5	7.0	7.5	8.2	8.4	30	158	92	17	9.5	6.4
20	7.4	7.5	7.0	7.3	8.0	8.1	35	183	87	17	9.3	6.2
21	8.7	6.5	7.0	6.3	7.3	8.3	40	228	80	20	9.0	6.0
22	9.4	4.5	7.0	6.7	7.1	9.0	45	268	73	21	8.8	6.0
23	8.7	5.5	6.5	4.7	6.3	9.4	50	283	65	16	8.7	6.0
24	8.8	6.0	5.5	6.1	6.0	9.3	45	301	59	14	8.6	6.0
25	8.6	6.5	6.0	8.4	5.2	9.4	40	299	56	13	9.2	6.0
26	8.6	7.0	7.0	8.3	6.3	8.9	35	263	53	13	8.8	6.0
27	8.4	7.5	8.0	7.6	7.3	9.1	30	242	48	12	8.4	6.3
28	8.2	6.0	6.5	7.0	7.5	8.7	30	230	45	12	7.8	6.3
29	8.2	5.5	5.0	8.0	7.5	8.3	40	235	42	11	7.7	6.6
30	8.4	6.0	5.0	8.7	---	7.9	50	233	39	11	7.5	6.4
31	8.2	---	5.3	7.6	---	9.1	---	232	---	13	7.3	---
TOTAL	228.3	217.5	208.8	215.0	195.3	241.1	712.2	5526	4111	659	328.6	217.0
MEAN	7.36	7.25	6.74	6.94	6.73	7.78	23.7	178	137	21.3	10.6	7.23
MAX	9.4	9.0	8.0	8.7	8.2	9.4	50	301	232	36	17	11
MIN	6.4	4.5	5.0	4.7	4.4	5.4	6.3	45	39	11	7.3	6.0
AC-FT	453	431	414	426	387	478	1410	10960	8150	1310	652	430
CAL YR 1979	TOTAL	15725.6	MEAN	43.1	MAX	362	MIN	2.5	AC-FT	31190		
WTR YR 1980	TOTAL	12859.8	MEAN	35.1	MAX	301	MIN	4.4	AC-FT	25510		

NOTE.--No gage-height record Nov. 16 to Jan. 15.

RIO GRANDE BASIN

08275600 RIO CHIOUITO NEAR TALPA, NM

LOCATION.--Lat 36°19'55", long 105°34'42", Taos County, Hydrologic Unit 13020101, in Carson National Forest, Rancho del Rio Grande Grant, on right bank 1 mi (2 km) southeast of Talpa, and at mile 2.1 (3.4 km).

DRAINAGE AREA.--37.0 mi² (95.8 km²).

PERIOD OF RECORD.--March 1957 to September 1980 (discontinued).

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

REMARKS.--Records good except those for May and June, which are poor. No diversions above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--23 years, 8.41 ft³/s (0.238 m³/s), 6,090 acre-ft/yr (7.51 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 309 ft³/s (8.75 m³/s) June 8, 1979, gage height, 2.81 ft (0.856 m); maximum gage height, 3.50 ft (1.067 m) May 20, 1973 (backwater from debris); minimum discharge, 0.16 ft³/s (0.005 m³/s) Jan. 31, 1972, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 25 ft³/s (0.7 m³/s) and maximum (*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft ³ /s)	(m ³ /s)	(ft)	(m)			(ft ³ /s)	(m ³ /s)	(ft)	(m)
May 11	unknown	a100	2.83	-	-	May 25	0315	a*150	4.25	2.5	0.76

a About.

Minimum discharge, 0.81 ft³/s (0.023 m³/s) Feb. 10, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	JCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	4.7	3.0	3.2	3.2	3.9	2.9	18	75	13	6.5	4.0
2	4.4	4.4	4.2	3.4	3.3	3.6	4.5	16	70	12	6.1	3.8
3	4.3	4.1	4.2	3.1	3.7	4.2	4.1	16	70	11	6.6	3.6
4	4.2	4.4	3.9	3.0	3.7	4.2	4.0	17	70	11	6.1	3.7
5	4.4	4.5	3.9	3.2	3.6	4.1	4.5	20	75	11	5.8	3.8
6	4.3	4.3	3.9	3.4	3.4	3.9	4.8	30	75	11	5.8	4.6
7	4.2	4.8	4.1	3.7	3.7	4.0	4.8	35	70	11	6.1	4.9
8	4.2	5.1	4.1	3.7	3.4	3.7	4.2	60	70	10	6.9	4.5
9	4.4	5.0	4.1	3.4	2.6	3.8	4.9	65	75	10	7.4	4.6
10	4.5	4.8	4.1	3.7	2.9	3.7	5.6	67	80	11	6.5	6.5
11	4.5	4.5	4.2	3.7	3.5	4.1	6.6	70	75	9.9	6.1	6.9
12	4.4	4.1	4.1	3.7	3.5	3.9	5.8	60	70	9.5	5.9	5.8
13	4.5	3.9	4.1	3.7	3.5	3.2	5.2	55	65	9.1	6.2	5.0
14	4.6	4.1	4.0	3.9	3.6	3.8	5.4	55	60	9.1	5.9	4.6
15	4.8	4.0	4.0	3.9	3.7	4.3	5.8	60	50	8.7	7.1	4.4
16	4.2	4.1	4.1	3.9	3.6	4.3	6.5	55	45	8.0	6.1	4.2
17	4.3	4.1	4.0	3.8	3.5	3.9	8.0	50	38	7.7	5.5	4.1
18	4.7	4.3	4.0	3.8	3.7	3.6	9.7	50	35	7.6	5.0	3.9
19	4.8	4.3	3.9	3.8	4.0	4.4	11	60	33	7.5	4.8	3.9
20	4.4	4.3	3.9	3.7	3.8	4.2	13	65	31	7.4	4.6	3.7
21	5.1	3.9	4.0	3.1	3.9	4.3	14	94	28	8.3	4.5	3.7
22	5.3	2.5	3.9	2.9	3.9	4.5	17	100	23	9.4	4.5	3.7
23	5.2	3.0	3.9	2.3	3.6	4.4	19	105	19	8.0	5.0	3.7
24	5.4	3.3	3.0	3.3	3.5	4.3	18	110	17	7.7	4.8	3.5
25	5.3	3.6	3.3	4.2	3.1	4.5	15	105	16	7.2	5.5	3.5
26	5.2	4.1	3.5	3.8	3.4	4.2	14	95	16	6.9	5.0	3.7
27	5.0	4.1	3.9	3.7	3.9	4.3	12	87	15	6.7	4.6	3.7
28	4.9	2.9	3.7	3.7	4.1	4.2	12	75	15	6.5	4.3	3.7
29	4.9	2.4	2.7	3.6	4.1	4.0	16	75	14	6.2	4.4	3.7
30	5.0	2.5	3.0	3.8	---	3.7	19	75	13	6.1	4.2	3.5
31	4.8	---	3.1	3.7	---	3.9	---	75	---	6.6	4.2	---
TOTAL	144.6	120.1	117.8	109.8	103.4	125.1	277.3	1920	1408	275.1	172.0	126.9
MEAN	4.66	4.00	3.80	3.54	3.57	4.04	9.24	61.9	46.9	8.87	5.55	4.23
MAX	5.4	5.1	4.2	4.2	4.1	4.5	19	110	80	13	7.4	6.9
MIN	4.2	2.4	2.7	2.3	2.6	3.2	2.9	16	13	6.1	4.2	3.5
ACFT	287	238	234	218	205	248	550	3810	2790	546	341	255

CAL YR 1979	TOTAL	7959.9	MEAN	21.8	MAX	200	MIN	1.5	AC-FT	15790
WTR YR 1980	TOTAL	4900.1	MEAN	13.4	MAX	110	MIN	2.3	AC-FT	9720

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 mi² (984 km²).

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 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--23 years, 52.8 ft³/s (1.495 m³/s), 38,250 acre-ft/yr (47.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,380 ft³/s (67.4 m³/s) Aug. 24, 1957, gage height, 5.80 ft (1.768 m), from rating curve extended above 900 ft³/s (25 m³/s); minimum, 1.9 ft³/s (0.054 m³/s) July 31, Aug. 1, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 230 ft³/s (6.5 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 9	1200	714 20.2	3.76 1.146	June 11	1030	558 15.8	3.50 1.067
May 24	0600	*1,030 29.2	4.25 1.295				

Minimum discharge, 11 ft³/s (0.31 m³/s) July 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	31	36	36	37	39	38	233	486	92	18	13
2	17	32	38	38	36	37	47	232	468	81	16	14
3	16	32	40	37	38	41	51	228	422	75	17	14
4	16	32	40	35	37	43	47	253	400	73	15	14
5	17	33	40	37	36	42	44	268	412	67	13	16
6	17	32	37	38	35	40	44	336	417	59	17	18
7	17	35	38	39	36	39	44	400	412	54	18	18
8	17	45	38	39	33	37	44	582	375	52	19	17
9	17	40	38	40	30	36	51	624	422	44	23	17
10	17	38	38	42	30	37	56	618	468	43	18	24
11	17	36	38	42	31	41	65	594	528	40	21	25
12	17	34	41	43	31	42	65	498	510	38	27	23
13	17	34	40	48	33	36	58	395	456	37	20	22
14	17	34	40	46	36	37	54	365	400	36	21	21
15	17	36	38	47	41	38	51	456	345	31	25	20
16	17	37	40	45	40	38	59	428	304	25	19	19
17	17	37	40	44	39	37	79	412	276	19	15	18
18	20	38	40	44	39	35	95	434	260	19	16	18
19	22	39	38	45	40	40	120	486	253	15	15	16
20	21	41	37	44	42	39	145	582	239	14	14	17
21	29	38	40	41	40	39	154	678	218	14	14	16
22	28	31	41	38	39	40	148	852	204	30	16	16
23	25	30	40	34	36	45	175	975	187	28	19	16
24	26	33	38	35	35	43	181	968	178	24	18	13
25	28	40	38	39	34	49	172	905	160	22	20	14
26	27	42	40	40	35	51	187	762	142	18	17	14
27	26	42	40	39	38	54	187	648	133	19	16	15
28	26	36	39	38	39	49	184	582	120	15	16	14
29	27	34	38	41	40	47	190	564	107	14	18	14
30	29	33	36	49	---	44	208	540	104	17	17	12
31	30	---	35	40	---	44	---	504	---	19	15	---
TOTAL	651	1075	1200	1263	1056	1279	3043	16402	9406	1134	1553	508
MEAN	21.0	35.8	38.7	40.7	36.4	41.3	101	529	314	36.6	17.8	16.9
MAX	30	45	41	49	42	54	208	975	528	92	27	25
MIN	16	30	35	34	30	35	38	228	104	14	13	12
AC-FT	1290	2130	2380	2510	2090	2540	6040	32530	18660	2250	1100	1010
CAL YR 1979	TOTAL	62433	MEAN	171	MAX	1590	MIN	15	AC-FT	123800		
WIR YR 1980	TOTAL	37570	MEAN	103	MAX	975	MIN	12	AC-FT	74520		

RIO GRANDE BASIN

08276500 RIO GRANDE BELOW TAOS JUNCTION BRIDGE, NEAR TAOS, NM

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 mi² (25,200 km²), approximately, including 2,940 mi² (7,610 km²) 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 km²) in Colorado and 30,000 acres (120 km²) in New Mexico.

AVERAGE DISCHARGE.--55 years, 725 ft³/s (20.53 m³/s), 525,300 acre-ft/yr (648 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,730 ft³/s (276 m³/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 ft³/s (4.39 m³/s) Sept. 21, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1888, about 14,000 ft³/s (400 m³/s) June 19, 1903, from records for Rio Grande at Embudo and estimated inflow. Other floods exceeding 10,000 ft³/s (280 m³/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.--Peak discharges above base of 1,600 ft³/s (45 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 11	0615	3,510 99.4	6.62 2.018	May 25	0815	*4,400 125	7.11 2.167

Minimum discharge, 194 ft³/s (5.49 m³/s) Sept. 9, 25, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	226	271	294	390	516	625	579	2050	3820	1760	455	242
2	226	271	321	393	508	614	598	2220	3790	1690	439	227
3	226	266	331	399	513	626	605	2220	3600	1660	448	217
4	226	278	339	414	518	612	598	2090	3490	1700	454	207
5	229	305	344	426	515	619	592	2060	3480	1660	423	205
6	229	334	346	437	519	619	586	2380	3580	1610	400	205
7	230	331	354	447	520	605	586	2570	3730	1460	384	203
8	227	339	371	445	541	598	598	2920	3810	1300	396	199
9	226	338	384	449	451	598	626	3150	3820	1310	519	199
10	226	347	388	463	471	586	633	3310	3900	1310	525	219
11	228	335	396	470	506	579	640	3440	3950	1230	518	235
12	227	347	411	471	510	579	640	3280	4100	1150	529	223
13	227	329	414	479	513	566	633	3180	4000	989	519	217
14	226	324	402	495	517	560	668	3020	3810	912	484	239
15	225	320	403	511	578	566	654	2800	3260	838	472	356
16	225	317	398	516	577	560	647	2820	2960	784	451	314
17	226	316	403	513	560	566	661	2820	2690	710	393	264
18	233	321	407	529	570	572	724	2640	2590	661	325	240
19	232	344	403	536	605	586	816	2500	2510	626	289	225
20	233	362	397	535	638	572	926	2680	2470	566	267	216
21	247	330	400	521	642	566	1180	2990	2470	508	256	208
22	249	268	414	516	630	566	1420	3390	2470	527	246	204
23	243	290	416	478	619	592	1680	3810	2300	520	240	203
24	250	283	409	476	594	586	1820	4170	2170	527	233	203
25	249	286	413	470	580	605	1930	4310	2080	490	240	200
26	258	297	402	487	563	619	1970	4270	2010	459	241	202
27	281	312	411	498	571	619	1770	3970	1980	520	243	203
28	273	307	418	504	585	619	1670	3600	1980	543	269	203
29	275	277	385	518	608	619	1710	3530	1940	508	336	198
30	275	290	378	540	---	612	1810	3540	1890	478	288	201
31	273	---	375	535	---	598	---	3630	---	486	264	---
TOTAL	7426	9332	11927	14861	16038	18409	29990	95360	90650	29492	11546	6677
MEAN	240	311	385	479	553	594	1000	3076	3022	951	372	223
MAX	281	362	418	540	642	626	1970	4310	4100	1760	529	356
MIN	225	266	294	390	451	560	579	2050	1890	459	233	198
AC-FT	14730	18510	23660	29480	31810	36510	59490	189100	179800	58500	22900	13240
CAL YR 1979	TOTAL	503363	MEAN	1379	MAX	7410	MIN	225	AC-FT	998400		
WTR YR 1980	TOTAL	741708	MEAN	934	MAX	4310	MIN	198	AC-FT	677800		

WATER-QUALITY RECORDS

CHEMICAL ANALYSES. WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
OCT												
25...	--	248	359	8.6	--	12.0	--	--	--	--	--	--
26...	0815	249	372	8.1	5.0	9.0	1.9	9.2	130	17	39	8.4
NOV												
26...	1530	315	372	8.2	--	6.0	--	--	--	--	--	--
DEC												
05...	1700	354	360	8.3	5.0	4.0	1.7	9.8	130	20	39	7.1
JAN												
09...	0830	451	320	8.0	.0	4.0	--	9.2	100	22	32	5.8
FEB												
12...	0830	573	296	7.4	-6.0	2.0	2.7	10.0	110	13	35	5.9
25...	1130	562	240	7.3	--	4.5	1.1	--	80	5	24	4.8
APR												
04...	0800	592	306	8.5	-1.0	6.0	6.1	9.2	110	11	33	6.2
25...	1830	1930	165	7.5	--	--	--	--	--	--	--	--
30...	0830	1740	188	8.2	9.0	10.0	24	8.7	69	21	21	4.0
JUN												
04...	1625	3420	190	8.3	28.0	15.5	18	8.6	--	--	--	--
26...	1200	2050	210	7.6	--	13.5	--	--	--	--	--	--
JUL												
08...	0830	1280	190	7.5	25.0	18.0	10	8.2	72	16	22	4.1
AUG												
14...	0700	488	190	7.9	18.0	19.0	14	8.2	69	3	21	4.1
SEP												
09...	0830	198	290	8.3	--	17.0	2.5	7.8	100	5	30	7.0
25...	1200	202	340	8.7	--	22.0	--	--	--	--	--	--

[illegible]

08276500 RIO GRANDE BELOW TAOS JUNCTION BRIDGE, NEAR TAOS, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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, ORTHOPH OSPHATE DISSOL. (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)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT												
25...	--	--	--	--	--	--	--	--	--	--	--	--
26...	.17	.18	.000	1.6	1.8	.040	.010	--	20	20	2.4	.00
NOV												
26...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
05...	.33	.34	.040	.48	.85	.030	.050	--	10	10	5.1	.00
JAN												
09...	.48	.48	.120	1.1	1.7	.120	.110	--	20	20	4.6	--
FEB												
12...	.41	.47	.060	.68	1.2	.090	.100	--	30	40	--	--
25...	--	.41	--	--	--	--	.070	30	30	--	--	--
APR												
04...	.24	.24	.130	1.2	1.5	.090	--	--	40	10	3.0	.00
25...	--	--	--	--	--	--	--	--	--	--	--	--
30...	.18	.19	.080	.68	.94	.160	.010	--	100	7	7.1	.00
JUN												
04...	.06	.13	.040	.73	.83	.110	.040	--	--	--	5.8	.00
26...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
08...	.07	.08	.010	.96	1.0	.110	.080	--	70	20	3.7	.00
AUG												
14...	.08	.08	.040	.44	.56	.100	.030	--	20	10	4.7	--
SEP												
09...	.11	.21	.000	.40	.51	.040	.030	50	10	80	3.6	--
25...	--	--	--	--	--	--	--	--	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	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)	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										
26...	0815	--	--	0	20	20	25	24	0	10
DEC										
05...	1700	--	--	0	10	10	3	25	10	<3
JAN										
09...	0830	--	--	0	20	20	5	35	10	<3
FEB										
12...	0830	--	--	0	30	40	33	39	40	6
25...	1130	--	30	--	30	--	10	--	--	--
APR										
04...	0800	2	--	0	40	10	22	25	30	<3
30...	0830	--	--	0	100	7	7	<10	60	<3
JUN										
04...	1625	--	--	0	--	--	0	--	40	--
JUL										
08...	0830	--	--	1	70	20	9	<10	20	9
AUG										
14...	0700	--	--	0	20	10	14	17	30	<3
SEP										
09...	0830	--	50	0	10	80	22	29	20	6

08276500 RIO GRANDE BELOW TAOS JUNCTION BRIDGE, NEAR TAOS, NM -- Continued

WATER-QUALITY RECORDS

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
APR 30...	0830	20
JUN 04...	1625	12
JUL 08...	0830	120
AUG 14...	0700	25
SEP 09...	0830	9

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 26...	0815	249	9.0	9	6.1
DEC 05...	1700	354	4.0	8	7.6
JAN 09...	0830	451	4.0	14	17
FEB 12...	0830	573	2.0	14	22
APR 04...	0800	592	6.0	16	26
30...	0830	1740	10.0	131	615
AUG 14...	0700	488	19.0	41	54

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 mi² (790 km²).

WATER-DISCHARGE RECORDS

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 km²), a small part of which is below gage.

AVERAGE DISCHARGE.--49 years (water years 1924-25, 1927-55, 1963-80), 77.6 ft³/s (2.198 m³/s), 56,220 acre-ft/yr (69.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1941).--Maximum discharge, 4,200 ft³/s (119 m³/s) Aug. 29, 1977, gage height, 7.10 ft (2.164 m), from rating curve extended above 1,600 ft³/s (45 m³/s); maximum gage height, 7.6 ft (2.32 m) Aug. 4, 1967; minimum discharge, 0.06 ft³/s (0.002 m³/s) June 26, 27, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 964 ft³/s (27.3 m³/s) at 0300 hours May 25, gage height, 4.37 ft (1.332 m), no other peak above base of 800 ft³/s (23 m³/s); minimum, 9.2 ft³/s (0.26 m³/s) Sept. 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	JCF	MOV	DEC	JAN	FFB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	29	24	24	27	34	35	281	568	127	21	11
2	18	30	29	31	28	31	51	259	552	119	20	10
3	21	28	37	24	31	34	46	244	523	107	21	9.7
4	22	30	41	22	30	34	50	257	527	96	20	9.5
5	22	30	40	26	29	33	62	335	542	89	19	9.7
6	23	29	36	27	28	33	74	604	551	79	20	10
7	23	31	37	31	31	32	80	592	543	74	19	11
8	21	39	37	31	29	29	70	698	552	107	26	11
9	20	43	36	31	25	30	76	679	634	85	36	12
10	21	41	34	31	23	29	86	646	671	80	30	25
11	21	39	34	30	27	34	105	649	662	73	50	34
12	21	36	35	30	28	34	87	563	659	63	40	27
13	20	33	30	32	29	27	76	485	625	60	32	22
14	19	34	24	35	33	34	72	474	595	55	31	19
15	20	35	25	39	56	37	76	513	573	49	43	18
16	19	34	30	34	45	38	96	508	523	40	36	16
17	19	34	27	32	38	33	123	502	494	36	29	13
18	19	37	26	32	37	32	150	504	484	35	27	12
19	20	37	24	31	45	38	193	510	470	34	25	11
20	22	41	26	32	40	36	240	560	435	34	20	11
21	26	35	31	28	34	35	247	650	390	39	16	10
22	30	25	36	27	33	39	277	736	356	40	15	10
23	30	25	32	21	30	42	302	751	321	35	14	11
24	30	30	22	25	32	41	286	868	284	35	14	11
25	24	38	33	29	29	45	244	880	254	32	14	11
26	29	41	33	30	30	42	212	748	232	30	13	12
27	30	41	32	31	32	47	229	636	206	27	13	13
28	29	25	31	30	35	43	282	557	178	24	12	13
29	29	24	20	30	35	43	322	557	153	21	12	13
30	31	24	18	34	---	41	310	568	141	20	12	13
31	29	---	18	31	---	45	---	561	---	21	11	---
TOTAL	731	998	938	921	949	1125	4559	17375	13698	1766	711	418.9
MEAN	23.6	33.3	30.3	29.7	32.7	36.3	152	560	457	57.0	22.9	14.0
MAX	31	43	41	39	56	47	322	880	671	127	50	34
MIN	18	24	18	21	23	27	35	244	141	20	11	9.5
AC-FT	1450	1980	1860	1830	1880	2230	9040	34460	27170	3500	1410	831
CAL YR 1979	TOTAL	59048.0	MEAN	162	MAX	1840	MIN	16	AC-FT	117100		
WTR YR 1980	TOTAL	44189.9	MEAN	121	MAX	880	MIN	9.5	AC-FT	87650		

08279000 EMBUDO CREEK AT DIXON, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH FIELD (UNITS)	TEMPER- ATURE, WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
		(00061)	(00095)	(00400)	(00010)	(00900)	(00902)	(00915)	(00925)	(00930)	(00931)	(00935)
OCT 25...	1115	29	412	8.2	10.0	200	6	66	7.5	9.2	.3	1.7
DEC 20...	1600	28	395	7.9	7.0	190	7	64	6.7	9.8	.3	1.4
MAR 28...	1305	39	346	8.0	9.0	170	34	58	7.1	9.9	.3	1.2
DATE	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHOPH DIS- OSPHATE DISSOL. (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	
OCT 25...	190	26	5.7	.3	15	257	246	.11	.030	30	<'	
DEC 20...	180	26	6.3	.4	14	--	238	.16	--	--	--	
MAR 28...	140	29	5.9	.2	13	--	209	.12	--	--	--	

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 mi² (26,940 km²), approximately, including 2,940 mi² (7,610 km²) 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 km²) in Colorado and 40,000 acres (160 km²) 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 ft³/s (35.06 m³/s), 896,900 acre-ft/yr (1.11 km³/yr); 50 years (water years 1931-80), 784 ft³/s (22.20 m³/s), 568,000 acre-ft/yr (700 hm³/yr), subsequent to upstream development.

EXTREMES FOR PERIOD OF RECORD (1889-1903 AND SINCE 1911).--Maximum discharge, 16,200 ft³/s (459 m³/s) June 19, 1903, gage height, about 15.9 ft (4.85 m); minimum daily, 130 ft³/s (3.68 m³/s) June 30, 1902. A flood of about 14,000 ft³/s (400 m³/s) occurred between May 20 and June 10, 1905, from a comparison of records for Lobatos and Otowi Bridge. Another major flood occurred Sept. 29 or 30, 1904.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (57 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 11	0515	4,160 118	7.55 2.301	May 25	0800	*5,080 144	8.59 2.618

Minimum discharge, 216 ft³/s (6.12 m³/s) Sept. 22, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	246	307	324	425	554	669	617	2350	4290	1940	477	275
2	246	309	347	430	546	661	664	2510	4260	1850	443	257
3	249	299	374	430	548	663	652	2530	4070	1790	465	246
4	249	305	392	450	550	657	656	2460	3940	1810	469	236
5	251	339	398	460	549	659	660	2490	3940	1780	438	232
6	252	372	393	480	551	659	664	3050	4040	1720	413	234
7	251	379	403	500	563	645	672	3190	4150	1590	392	232
8	247	400	420	500	566	629	662	3600	4230	1450	439	230
9	248	400	439	500	514	636	696	3770	4340	1420	578	233
10	246	400	440	510	476	626	721	3900	4450	1420	620	264
11	247	391	451	525	532	623	748	4080	4530	1350	647	297
12	249	396	467	525	545	622	734	3890	4670	1250	648	278
13	247	383	467	530	546	599	705	3670	4530	1110	641	260
14	246	372	448	556	557	598	735	3510	4360	1010	590	253
15	246	369	446	566	638	605	738	3320	3830	931	594	392
16	242	364	444	572	647	601	744	3340	3470	853	561	375
17	244	360	448	566	608	600	777	3330	3230	772	498	307
18	252	372	453	572	615	604	850	3150	3100	705	416	272
19	255	395	449	588	661	619	997	2980	3000	666	357	255
20	257	415	444	594	690	612	1120	3140	2920	599	322	241
21	274	389	447	566	691	597	1340	3460	2860	536	302	230
22	290	307	477	566	677	603	1610	3920	2830	542	288	224
23	275	315	475	535	668	631	1860	4340	2640	547	279	224
24	285	320	450	510	637	633	2030	4810	2480	550	270	223
25	282	331	470	502	621	658	2070	4960	2350	517	275	223
26	284	344	455	522	605	671	2130	4890	2270	478	277	223
27	317	358	465	536	611	684	2030	4550	2210	513	277	227
28	310	343	465	544	625	676	1990	4160	2170	565	286	227
29	311	308	430	554	653	668	2060	4020	2130	531	384	226
30	315	315	410	592	---	666	2150	4040	2070	491	338	224
31	311	---	395	574	---	659	---	4120	---	498	301	---
TOTAL	8224	10657	13386	16280	17244	19733	34082	111530	103360	31784	13285	7620
MEAN	265	355	432	525	595	637	1136	3598	3445	1025	429	254
MAX	317	415	477	594	691	684	2150	4960	4670	1940	648	392
MIN	242	299	324	425	476	597	617	2350	2070	478	270	223
AC-FT	16310	21140	26550	32290	34200	39140	67600	221200	205000	63040	26350	15110
CAL YR 1979	TOTAL	564127	MEAN	1546	MAX	8770	MIN	242	AC-FT	1119000		
WTR YR 1980	TOTAL	387185	MEAN	1058	MAX	4960	MIN	223	AC-FT	768000		

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 mi² (27,320 km²), approximately, including 2,940 mi² (7,610 km²) 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 km²) in Colorado and 42,000 acres (170 km²) 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.--17 years, 718 ft³/s (20.33 m³/s), 520,200 acre-ft/yr (641 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,220 ft³/s (233 m³/s) June 9, 1979, gage height, 6.94 ft (2.115 m); minimum, 92 ft³/s (2.61 m³/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.--Peak discharges above base of 2,000 ft³/s (57 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 11	0915	4,080 116	4.55 1.387	May 26	0845	*4,830 137	5.06 1.542

Minimum discharge, 155 ft³/s (4.39 m³/s) Sept. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	227	280	345	435	560	640	601	2160	4110	1850	423	225
2	214	288	360	445	550	643	634	2360	4130	1780	393	207
3	215	281	377	420	552	634	625	2360	3960	1730	436	199
4	219	277	392	415	552	635	633	2280	3830	1750	432	179
5	227	304	398	445	554	635	626	2240	3830	1750	419	170
6	236	332	379	466	554	637	635	2840	3900	1690	396	185
7	234	345	371	486	566	623	638	2990	4020	1580	370	189
8	223	365	401	490	564	613	623	3410	4070	1430	388	185
9	221	365	423	488	539	615	646	3620	4170	1360	466	181
10	221	365	429	496	469	613	657	3760	4290	1360	557	216
11	223	366	440	511	525	614	693	3970	4370	1320	557	259
12	221	355	457	513	548	607	687	3810	4490	1220	601	259
13	217	352	451	517	547	594	660	3600	4400	1120	566	246
14	227	336	445	542	562	577	666	3480	4280	993	511	225
15	229	333	434	556	621	587	673	3270	3850	908	520	310
16	226	332	428	568	647	584	683	3300	3470	819	489	345
17	234	330	434	564	613	581	707	3300	3210	732	443	282
18	241	338	439	574	615	584	746	3130	3030	619	359	237
19	247	356	445	583	647	598	860	2940	2950	586	294	212
20	245	375	434	590	678	599	971	3060	2850	540	264	189
21	259	366	439	565	684	586	1140	3390	2790	480	241	173
22	281	309	463	563	673	588	1380	3820	2800	490	237	169
23	270	291	463	544	664	617	1650	4210	2630	490	226	169
24	275	314	445	506	633	620	1880	4560	2440	493	215	181
25	275	326	451	495	624	638	1920	4690	2300	473	203	185
26	273	337	445	519	599	657	2030	4700	2200	424	194	185
27	298	355	457	535	595	668	1970	4400	2120	446	195	185
28	301	334	462	545	603	656	1860	4050	2080	510	223	185
29	299	310	430	547	626	650	1900	3910	2060	474	281	181
30	301	321	405	590	---	644	1970	3940	1990	440	276	173
31	294	---	430	571	---	635	---	3970	---	434	249	---
TOTAL	7673	9939	13172	16084	17164	19172	31314	107520	100620	30291	11424	6286
MEAN	248	331	425	519	592	618	1044	3468	3354	977	369	210
MAX	301	375	463	590	684	668	2030	4700	4490	1850	601	345
MIN	214	277	345	415	469	577	601	2160	1990	424	194	169
AC-FT	15220	19710	26130	31900	34040	38030	62110	213300	199600	60080	22660	12470
(†)	---	---	---	---	---	---	3	22	28	40	91	86
(††)	357	221	---	---	---	---	18	326	324	397	770	411
(‡)	508	---	---	---	---	---	198	292	299	176	85	177
CAL YR 1979 TOTAL	550108	MEAN	1507	MAX	7850	MIN	214	AC-FT	1091000			
WTR YR 1980 TOTAL	370659	MEAN	1013	MAX	4700	MIN	169	AC-FT	735200			

† Estimated diversion, in acre-feet, by San Juan lateral.

†† 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 mi² (1,200 km²), 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 km²) above station (1962 determination). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--25 years, 319 ft³/s (9.034 m³/s), 231,000 acre-ft/yr (285 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,200 ft³/s (317 m³/s) May 28, 1979, gage height, 6.35 ft (1.935 m), from rating extended above 5,400 ft³/s (153 m³/s); minimum, 4.0 ft³/s (0.11 m³/s) Sept. 19, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of about 9,000 ft³/s (250 m³/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 ft³/s (280 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (57 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Apr. 22	2400	2,380 67.4	4.67 1.423	May 24	0030	*7,240 205	5.87 1.789
May 8	0330	3,780 107	5.14 1.567				

Minimum discharge, 15 ft³/s (0.42 m³/s) Dec. 19, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
1	23	42	49	40	50	77	75	1860	3290	492	48	42
2	27	35	48	45	50	79	97	1510	2930	584	48	40
3	28	34	54	42	50	82	88	1650	2930	489	46	39
4	28	43	55	40	55	79	97	2110	3020	420	45	37
5	29	40	55	40	55	77	127	2430	3110	358	44	41
6	30	41	51	42	60	78	173	2750	2950	317	47	43
7	30	49	52	45	70	77	192	2700	2730	296	47	57
8	30	60	53	45	65	69	189	3240	2760	359	53	72
9	29	65	53	45	60	70	228	2840	2890	291	79	99
10	29	59	51	45	60	69	333	2490	2790	257	78	150
11	35	57	51	45	60	77	395	2420	2590	234	69	254
12	38	45	53	48	60	76	306	2380	2400	205	62	143
13	37	40	52	50	62	63	290	1930	2150	182	72	107
14	36	43	50	55	65	65	355	2050	1910	194	80	89
15	36	44	50	55	70	80	571	1950	1620	165	87	79
16	31	44	52	50	71	85	801	1610	1410	136	74	79
17	30	44	53	45	72	72	901	1610	1300	113	62	72
18	35	55	54	45	78	72	1080	2130	1270	101	53	65
19	40	54	55	42	90	87	1290	2510	1230	88	46	62
20	40	53	55	45	85	89	1490	3070	1150	87	44	56
21	61	47	56	45	80	99	1600	3580	1050	80	44	52
22	69	42	60	43	73	116	1820	4630	987	81	39	50
23	56	40	55	42	65	116	1850	4830	891	81	44	48
24	56	38	48	45	65	100	1490	5190	827	77	61	49
25	56	40	50	45	66	109	1020	3970	810	76	95	47
26	55	45	55	45	68	92	961	3440	751	72	84	45
27	54	57	60	45	70	100	1050	3230	722	70	68	46
28	48	50	55	50	73	89	1460	3240	676	63	59	47
29	47	48	50	55	79	90	1820	3320	609	57	52	49
30	47	48	45	60	---	85	1950	3360	547	56	50	46
31	45	---	45	50	---	92	---	3430	---	49	46	---
TOTAL	1235	1397	1625	1434	1927	2611	24099	87460	54300	6130	1826	2105
MEAN	39.8	46.6	52.4	46.3	66.4	84.2	803	2821	1810	198	58.9	70.2
MAX	69	65	60	60	90	116	1950	5190	3290	584	95	254
MIN	23	34	45	40	50	63	75	1510	547	49	39	37
AC-FT	2450	2770	3220	2840	3820	5180	47800	173500	107700	12160	3620	4180
CAL. YR 1979	TOTAL	235165	MEAN	644	MAX	7600	MIN	22	AC-FT	466400		
WTR YR 1980	TOTAL	186149	MEAN	509	MAX	5190	MIN	23	AC-FT	369200		

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.--10 years, 135 ft³/s (3.823 m³/s), 97,810 acre-ft/yr (121 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,170 ft³/s (33.1 m³/s) May 17, 1978, gage height, 7.85 ft (2.393 m); no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,090 ft³/s (30.9 m³/s) May 24, gage height, 7.51 ft (2.289 m); no flow Jan. 1 to Apr. 6, Sept. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.17	.08	.00	.00	.00	.00	504	1030	761	42	.00
2	.08	.23	.08	.00	.00	.00	.00	413	981	754	33	.00
3	.08	.23	.08	.00	.00	.00	.00	432	1010	688	47	.12
4	.08	.23	.08	.00	.00	.00	.00	544	1070	609	54	.33
5	.02	.23	.08	.00	.00	.00	.00	637	1080	522	21	.33
6	.02	.23	.08	.00	.00	.00	.00	728	1060	462	40	.33
7	.02	.23	.08	.00	.00	.00	1.3	792	1050	444	29	.54
8	.02	.23	.08	.00	.00	.00	10	942	1040	502	20	1.7
9	.02	.23	.08	.00	.00	.00	34	805	1010	444	44	2.7
10	.02	.23	.08	.00	.00	.00	56	640	1000	382	24	140
11	.02	.23	.08	.00	.00	.00	83	592	1040	345	13	303
12	.02	.23	.08	.00	.00	.00	54	547	1020	313	11	149
13	.02	.23	.08	.00	.00	.00	50	435	959	276	20	80
14	.02	.23	.08	.00	.00	.00	65	449	970	278	49	56
15	.02	.23	.08	.00	.00	.00	137	481	1000	219	66	40
16	.02	.23	.08	.00	.00	.00	234	420	1020	199	51	28
17	.02	.23	.08	.00	.00	.00	312	457	1020	176	30	19
18	.02	.23	.08	.00	.00	.00	414	536	1020	165	20	11
19	.02	.23	.08	.00	.00	.00	552	648	1000	156	15	6.7
20	.02	.23	.08	.00	.00	.00	648	855	998	144	11	4.8
21	4.0	.23	.08	.00	.00	.00	685	943	1000	134	8.0	3.8
22	2.1	.23	.08	.00	.00	.00	837	1010	1000	141	6.0	2.2
23	.94	.23	.08	.00	.00	.00	766	1050	993	164	126	1.0
24	.44	.14	.08	.00	.00	.00	586	1080	1000	125	73	.41
25	.33	.14	.08	.00	.00	.00	442	982	1010	91	203	.33
26	.23	.14	.08	.00	.00	.00	439	900	990	84	76	.33
27	.23	.14	.08	.00	.00	.00	466	905	964	71	14	.33
28	.14	.14	.08	.00	.00	.00	589	961	978	46	.28	.33
29	.14	.14	.08	.00	.00	.00	682	977	918	37	.10	.33
30	.14	.14	.08	.00	---	.00	663	995	862	43	.10	.33
31	.14	---	.08	.00	---	.00	---	1010	---	30	.10	---
TOTAL	9.17	6.21	2.48	.00	.00	.00	8805.30	22670	30093	8805	1146.58	852.94
MEAN	.30	.21	.080	.000	.000	.000	294	731	1003	284	37.0	28.4
MAX	4.0	.23	.08	.00	.00	.00	837	1080	1080	761	203	303
MIN	.02	.14	.08	.00	.00	.00	.00	413	862	30	.10	.00
AC-FT	19	12	4.9	.00	.00	.00	17470	44970	59690	17460	2270	1690
CAL YR 1979	TOTAL	82747.87	MEAN	227	MAX	1090	MIN	.02	AC-FT	164100		
WTR YR 1980	TOTAL	72390.88	MEAN	198	MAX	1080	MIN	.00	AC-FT	143600		

RIO GRANDE BASIN

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 mi² (290 km²).

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 ft³/s (0.297 m³/s), 7,610 acre-ft/yr (9.38 hm³/yr), prior to completion of Azotea tunnel; 10 years (water years 1971-80), 147 ft³/s (4.163 m³/s), 106,500 acre-ft/yr (131 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,600 ft³/s (45.3 m³/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, 1,100 ft³/s (31.2 m³/s) May 24, gage height, 4.84 ft (1.475 m); minimum daily, 0.08 ft³/s (0.002 m³/s) Oct. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	.26	.10	.21	.24	9.3	23	633	1040	842	49	1.4
2	.23	.24	.10	.22	.24	9.3	26	490	1010	705	37	1.0
3	.21	.22	.10	.21	.24	9.8	25	503	1020	679	38	.59
4	.21	.21	.10	.21	.24	8.3	40	615	1070	603	68	.38
5	.18	.19	.11	.22	.24	11	94	740	1080	514	30	.32
6	.13	.19	.11	.23	.24	10	172	838	1060	448	44	.43
7	.12	.18	.11	.24	.24	9.0	199	870	1050	402	38	.70
8	.11	.18	.11	.23	.24	8.2	190	1040	1030	480	27	.29
9	.11	.19	.11	.22	.24	8.1	277	872	1010	438	51	2.0
10	.11	.20	.11	.20	.24	8.0	398	675	992	349	37	95
11	.10	.21	.11	.19	.24	12	411	573	1000	336	22	302
12	.10	.21	.12	.18	.24	8.2	284	571	1020	311	17	184
13	.09	.20	.13	.18	.24	6.8	273	420	946	281	18	93
14	.09	.19	.13	.18	.24	8.4	411	438	958	273	55	70
15	.09	.19	.12	.19	.24	10	687	480	975	237	80	53
16	.09	.18	.12	.22	.24	13	841	437	1020	218	75	38
17	.08	.16	.11	.24	.24	11	830	444	1000	199	46	24
18	.08	.15	.11	.27	.24	8.7	913	533	1010	180	30	13
19	.09	.15	.11	.30	3.0	16	1010	618	992	169	21	8.6
20	.09	.16	.11	.30	4.8	26	1070	840	992	162	14	5.0
21	.11	.18	.11	.30	3.7	46	1050	958	986	140	11	3.7
22	2.7	.19	.11	.29	2.4	64	1220	1030	986	144	7.8	2.8
23	1.7	.19	.12	.26	3.4	55	1040	1070	986	173	101	1.8
24	.88	.18	.13	.24	3.7	55	816	1100	981	155	82	1.1
25	.76	.16	.13	.24	4.0	45	524	1020	992	106	201	.72
26	.67	.16	.15	.24	4.6	38	522	912	975	98	120	.45
27	.63	.18	.15	.24	5.4	37	521	907	975	86	30	.40
28	.56	.18	.15	.24	6.6	28	704	963	969	62	7.3	.38
29	.49	.13	.16	.24	8.5	35	796	1000	916	42	2.3	.38
30	.40	.11	.18	.24	---	30	789	1000	863	43	1.4	.36
31	.30	---	.19	.24	---	28	---	1030	---	33	1.0	---
TOTAL	11.75	5.52	3.81	7.21	54.42	672.1	16156	23620	29904	8908	1361.8	904.80
MEAN	.38	.18	.12	.23	1.88	21.7	539	762	997	287	43.9	30.2
MAX	2.7	.26	.19	.30	8.5	64	1220	1100	1080	842	201	302
MIN	.08	.11	.10	.18	.24	6.8	23	420	863	33	1.0	.29
AC-FT	23	11	7.6	14	108	1330	32050	46850	59310	17670	2700	1790
CAL YR 1979	TOTAL	90414.72	MEAN	248	MAX	1090	MIN	.03	AC-FT	179300		
WTR YR 1980	TOTAL	81609.41	MEAN	223	MAX	1220	MIN	.08	AC-FT	161900		

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 mi² (120 km²), 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.--Diversion 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 ft³/s (0.031 m³/s), 797 acre-ft/yr (983,000 m³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,960 ft³/s (112 m³/s) July 30, 1968, gage height, 4.9 ft (1.49 m), site and datum then in use, from rating curve extended above 37 ft³/s (1.05 m³/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.--Peak discharges above base of 100 ft³/s (2.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Apr. 6	1800	130 3.68	2.77 0.844	Apr. 16	1800	133 3.77	2.79 0.850
Apr. 10	1700	*147 4.16	2.87 .875				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

PAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00				---	6.0	5.0	8.6	.30	.00	.00	3.1
2	.00				---	5.2	5.3	7.2	.11	.00	.00	3.0
3	.00				---	4.6	8.8	6.1	.09	.00	.00	3.0
4	.00				---	4.4	25	6.4	.07	.00	.00	3.0
5	.00				---	5.0	45	7.8	.06	.00	.00	3.6
6	.00				---	5.1	69	18	.04	.00	.00	4.2
7	.00				---	4.6	53	10	.02	.00	.00	3.7
8	.00				---	3.1	47	11	.02	.00	.00	3.6
9	.00				---	2.4	56	6.2	.01	.00	.00	4.6
10	.00				---	2.8	78	4.7	.00	.00	.25	6.0
11	.00				---	6.7	62	3.6	.00	.00	1.2	5.2
12	.00				---	2.8	34	3.0	.00	.00	1.5	3.9
13	.00				---	3.4	32	2.5	.00	.00	1.7	3.5
14	.00				---	4.6	54	2.4	.00	.00	1.8	3.5
15	.00				---	7.6	74	7.4	.00	1.4	3.0	3.5
16	.00				---	7.6	77	5.8	.00	2.9	2.5	3.4
17	.00				---	4.9	64	3.0	.00	3.0	2.3	3.1
18	.00				---	5.9	61	2.0	.00	2.0	2.4	3.0
19	.00				---	11	54	1.6	.00	.45	2.5	3.0
20	.00				---	19	43	1.5	.00	.04	2.5	3.0
21	.00				---	37	44	1.4	.00	.00	2.5	2.9
22	.00				---	27	63	1.3	.00	.00	2.5	2.8
23	.00				---	14	47	1.3	.00	.00	3.0	2.9
24	.00				---	15	35	.88	.00	.00	6.0	3.0
25	.00				---	11	14	.72	.00	.00	5.1	3.0
26	.00				---	7.4	11	.64	.00	.00	3.7	2.4
27	.00				---	7.2	13	.61	.00	.00	3.3	1.1
28	.00				---	3.9	5.0	.54	.00	.00	3.0	.51
29	.00				---	4.9	5.8	.51	.00	.00	3.0	.33
30	.00				---	7.0	11	.51	.00	.00	3.0	.20
31	.00				---	4.9	---	.48	---	.00	3.2	---
TOTAL	.00	---	---	---	---	257.9	1214.1	127.69	.72	9.79	59.95	92.04
MEAN	.000	---	---	---	---	8.32	40.5	4.12	.024	.32	1.93	3.07
MAX	.00	---	---	---	---	37	78	18	.30	3.0	6.0	6.0
MIN	.00	---	---	---	---	2.4	5.0	.48	.00	.00	.00	.20
AC-FT	.00	---	---	---	---	512	2410	253	1.4	19	119	183

RIO GRANDE BASIN

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 mi² (500 km²).

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 hm³) at elevation 7,186.1 ft (2,190.32 m), low point on crest of uncontrolled spillway, including 1,340 acre-ft (1.65 hm³) of dead storage at elevation 7,003.0 ft (2,134.51 m), invert of gate sill of outlet tunnel. Reservoir is used for storage of transmountain water from San Juan River basin and for recreation. Figures given herein represent total storage.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 367,900 acre-ft (454 hm³) 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, 367,900 acre-ft (454 hm³) July 17, elevation, 7,180.30 ft (2,188.555 m); minimum, 238,900 acre-ft (295 hm³) Apr. 14, elevation, 7,154.46 ft (2,180.679 m).

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

7,150	219,800	7,180	366,200
7,160	263,900	7,190	424,700
7,170	312,600		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	298600	295700	292100	243700	244900	244200	239700	257800	301900	357500	354600	347300
2	298400	295600	290300	243700	244800	244300	239600	258400	303900	358600	353600	347200
3	298200	295600	288600	243700	244800	244200	239600	259000	305900	359900	352400	347100
4	298100	295500	286800	243700	244900	243800	239600	259900	307800	361000	351400	347000
5	298000	295500	284900	243700	244900	243400	239900	261200	309800	361900	350500	347100
6	298000	295400	282900	243700	244900	243500	240300	262700	311800	362800	349600	347100
7	297900	295600	281000	243700	244900	243400	240700	264100	313800	363500	348500	347000
8	297800	295600	279000	243700	244900	243300	240400	265900	315800	364400	347800	347200
9	297700	295600	277100	243800	244800	243100	240000	267400	317900	365200	347700	347300
10	297600	295500	275100	243900	244700	242900	240100	268700	319700	365800	347700	347400
11	297400	295500	273200	244000	244300	243000	239800	269700	321600	366500	347600	347700
12	297300	295400	271300	244100	244100	243000	239400	270700	323400	367000	347600	347800
13	297200	295400	269100	244100	244000	243100	239100	271600	325100	367500	347500	347900
14	297200	295300	267100	244100	244200	243100	239700	272400	326900	367800	347600	347900
15	297100	295300	265100	244200	244300	243200	240800	273500	328700	367700	347700	347900
16	297000	295200	263100	244200	244400	243300	241600	274500	330600	367600	347700	347800
17	297000	295200	261100	244200	244400	243200	241700	275300	332500	367900	347600	347700
18	296900	295100	259000	244500	244700	243000	241900	276400	334500	367300	347600	347600
19	296900	295500	257000	244500	245000	242800	242500	277500	336500	366400	347500	347500
20	296800	295400	255000	244500	245200	242600	243700	279200	338300	365600	347300	347300
21	297000	295400	253000	244500	245500	242600	245100	281300	340300	364700	347300	347100
22	296900	295300	251000	244500	245600	242500	247100	283100	342200	363900	347200	346900
23	296800	295300	248900	244500	245600	242500	248800	285200	344200	363400	347300	346700
24	296500	295200	246900	244500	245700	242300	250000	287200	345900	362800	347500	346600
25	296500	295200	244900	244400	245500	242200	250700	289100	347700	362100	347800	346500
26	296400	295100	244000	244400	245100	241800	251700	291000	349400	361500	347900	346500
27	296400	295100	244300	244400	244900	241600	252700	292700	351100	360800	347800	346400
28	296300	295000	243800	244400	244400	241300	253900	294500	352900	359900	347700	346300
29	296100	295000	243800	244900	244200	241000	255400	296400	354600	358600	347600	346300
30	295800	294000	243800	244900	---	240600	256800	298300	356000	357300	347400	346200
31	295700	---	243700	244900	---	240200	---	300100	---	355900	347300	---
MAX	298600	295700	292100	244900	245700	244300	256800	300100	356000	367900	354600	347900
MIN	295700	294000	243700	243700	244000	240200	239100	257800	301900	355900	347200	346200
(†)	7166.64	7166.28	7155.56	7155.83	7155.67	7154.76	7158.48	7167.53	7178.17	7178.14	7176.58	7176.37
(‡)	-3000	-1700	-50300	+1200	-700	-4000	+16600	+43300	+55900	-100	-8600	-1100
CAL YR 1979	MAX	301600	MIN	145300	‡	+95700						
WTR YR 1980	MAX	367900	MIN	239100	‡	+47500						

† 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 mi² (500 km²).

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.--9 years, 104 ft³/s (2.945 m³/s), 75,350 acre-ft/yr (92.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,220 ft³/s (62.9 m³/s) Dec. 12, 1973; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,150 ft³/s (32.6 m³/s) Dec. 10; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	.00	901	.00	.00	.00	247	157	35	104	627	.00
2	44	.00	901	.00	.00	.00	142	195	30	46	560	.00
3	31	.00	900	.00	.00	178	69	195	27	.00	560	.00
4	.00	.00	898	.00	.00	297	67	195	41	.00	472	.00
5	.00	.00	955	.00	.00	194	67	139	49	.00	395	.00
6	.00	.00	996	.00	.00	.00	67	158	35	.00	395	.00
7	.00	.00	993	.00	.00	62	122	197	22	.00	499	.00
8	.00	.00	991	.00	16	102	464	197	22	.00	395	7.5
9	.00	.00	991	.00	35	102	625	116	30	.00	.00	66
10	49	.00	990	.00	35	100	545	62	44	.00	.00	98
11	32	.00	988	.00	175	43	728	62	49	.00	.00	22
12	.00	.00	1020	.00	92	20	647	25	49	.00	.00	43
13	.00	.00	1050	.00	41	20	512	.00	43	.00	.00	39
14	.00	.00	1050	.00	.00	.00	212	.00	34	181	31	39
15	.00	.00	1040	.00	.00	.00	308	.00	34	272	.00	34
16	.00	.00	1040	.00	.00	.00	732	.00	17	149	.00	24
17	.00	.00	1040	.00	.00	81	926	.00	.00	126	.00	20
18	.00	.00	1040	.00	.00	140	969	.00	.00	387	.00	37
19	.00	.00	1040	.00	.00	139	859	.00	.00	527	.00	24
20	.00	.00	1040	.00	.00	139	558	.00	.00	527	.00	40
21	74	.00	1040	.00	.00	139	431	.00	.00	530	23	40
22	54	.00	1040	.00	.00	139	357	.00	.00	465	39	40
23	.00	.00	1040	.00	.00	139	304	.00	15	396	39	15
24	.00	.00	1040	.00	103	139	241	.00	66	396	39	.00
25	.00	.00	1040	.00	193	201	147	.00	99	395	38	.00
26	.00	.00	420	.00	193	247	96	.00	100	396	39	.00
27	.00	.00	.00	.00	222	247	96	4.7	68	396	39	.00
28	.00	.00	728	.00	118	247	97	16	39	519	16	.00
29	66	.00	.00	.00	.00	247	98	21	39	614	.00	.00
30	59	487	.00	.00	---	246	99	27	71	688	.00	.00
31	.00	---	.00	.00	---	246	---	35	---	733	.00	---
TOTAL	410.50	487.00	25712.00	.00	1223.00	3854.00	10832	1801.70	1058.00	7847.00	4206.00	588.50
MEAN	13.2	16.2	829	.00	42.2	124	361	58.1	35.3	253	136	19.6
MAX	74	487	1050	.00	222	297	969	197	100	733	627	98
MIN	.00	.00	.00	.00	.00	.00	67	.00	.00	.00	.00	.00
AC-FT	814	966	51000	.00	2430	7640	21490	3570	2100	15560	8340	1170
CAL. YR 1979	TOTAL	43239.40	MEAN 118	MAX 1080	MIN .00	AC-FT 85770						
WTR YR 1980	TOTAL	58019.70	MEAN 159	MAX 1050	MIN .00	AC-FT 115100						

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

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

GAGE.--Water-stage recorder. Prior to October 1967, nonrecording gage only below gage height 6,879.3 ft (2,096.81 m). Datum of gage is 8.21 ft (2.502 m) 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 hm³) between gage heights 6,759.0 ft (2,060.14 m) and 6,902.0 ft (2,103.73 m), top of spillway gate. Dead storage, 1,060 acre-ft (1.31 hm³) below 6,775.0 ft (2,065.02 m), sill of outlet works. Figures given herein represent total contents. Reservoir is used to impound water for irrigation by Middle Rio Grande Conservancy District and, since December 1972, for storage of contract water from San Juan-Chama Project. Rehabilitation of outlet works, completed in December 1966, increased valve-controlled release from about 1,750 ft³/s (50 m³/s) to about 6,000 ft³/s (170 m³/s).

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 204,900 acre-ft (253 hm³), of which 7,400 acre-ft (9.12 hm³) 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, 149,200 acre-ft (184 hm³) Oct. 1, gage height, 6,886.78 ft (2,099.091 m); minimum, 95,280 acre-ft (117 hm³) Sept. 30, gage height, 6,864.40 ft (2,092.269 m).

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

6,860	86,770
6,870	107,000
6,880	130,800
6,890	158,500

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	147800	123500	123800	123200	123500	123800	123600	123100	123000	122700	121800	109100
2	146400	123500	123700	123300	123600	123800	123700	122600	122800	122900	121800	107400
3	144900	123500	123700	123300	123600	123900	123700	122800	123000	122800	121800	105700
4	143400	123400	123700	123300	123700	123700	123600	124000	123000	122700	121800	104200
5	141800	123400	123600	123300	123800	123600	123400	124900	122900	122500	121900	103900
6	140400	123400	123600	123400	123800	123700	123400	124900	122800	122200	121900	101800
7	138900	123500	123600	123400	123800	123700	123400	123800	123100	122200	121900	100700
8	137400	123600	123500	123400	123600	123600	123400	124000	123600	122700	121900	100200
9	136000	123600	123500	123400	123500	123500	123600	123100	123600	122900	121900	100400
10	135200	123700	123400	123500	123400	123500	123800	123700	123100	122800	121900	100700
11	135200	123700	123300	123500	123500	123600	123900	123200	122800	122600	121900	100900
12	135200	123600	123300	123400	123500	123700	123600	123400	123000	122500	121900	100800
13	135200	123600	123200	123400	123600	123600	123200	122700	123000	122400	122000	100700
14	135200	123600	123200	123400	123700	123600	123100	122900	123000	122400	122100	100600
15	135200	123600	123200	123400	123800	123500	123500	123200	123200	122400	122200	100700
16	135100	123600	123300	123400	123900	123400	123700	123100	123400	122400	122100	100800
17	135100	123600	123300	123400	123900	123400	123400	122900	123300	122300	122000	100700
18	135100	123600	123300	123500	124000	123600	123500	123700	123100	122300	122000	100700
19	135100	123800	123300	123400	123900	123700	123500	122900	122900	122300	121900	100700
20	135100	123800	123300	123400	123600	123700	123100	123600	123000	122300	121800	100700
21	135200	123800	123300	123300	123600	123700	123100	123300	123300	122200	121800	100600
22	134200	123800	123300	123200	123600	123700	123100	123000	123400	122200	121800	100600
23	132500	123800	123200	123200	123600	123800	123100	123000	123100	122100	121800	100100
24	131000	123800	123200	123300	123600	123800	122400	123100	122900	122100	122000	99310
25	129500	123800	123100	123300	123600	123800	122200	122400	122800	122100	121100	98770
26	128100	123800	123000	123400	123500	123600	122900	122800	122900	122000	119200	98220
27	126800	123800	123100	123500	123600	123600	123300	123100	122900	122000	117500	97730
28	125400	123800	123500	123500	123800	123600	123600	123300	122900	122000	115900	97180
29	124100	123700	123400	123700	123800	123500	123700	123400	122800	122000	114300	96430
30	123600	123800	123300	123700	---	123400	123400	123300	122700	121900	112600	95280
31	123500	---	123200	123600	---	123400	---	123400	---	121800	110900	---
MAX	147800	123800	123800	123700	124000	123900	123900	124900	123600	122900	122200	109100
MIN	123500	123400	123000	123200	123400	123400	122200	122400	122700	121800	110900	95280
(†)	6877.10	6877.23	6876.98	6877.12	6877.23	6877.06	6877.05	6877.06	6876.76	6876.39	6871.74	6864.40
(‡)	-25700	+300	-600	+400	+200	-400	0	0	-700	-900	-10900	-15620
CAL YR 1979	MAX	178300	MIN	51480	†	+70650						
WTR YR 1980	MAX	147800	MIN	95280	‡	-53920						

† 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 mi² (2,271 km²), of which about 100 mi² (260 km²) is probably noncontributing.

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

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 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--5 years (water years 1914-15, 1921-23) 448 ft³/s (12.69 m³/s), 324,600 acre-ft/yr (400 hm³/yr), prior to completion of El Vado Dam; 35 years (water years 1936-70), 373 ft³/s (10.56 m³/s), 270,200 acre-ft/yr (333 hm³/yr), prior to release of transmountain water; 10 years (water years 1971-80), 405 ft³/s (11.47 m³/s), 293,400 acre-ft/yr (362 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,000 ft³/s (255 m³/s) May 22, 1920, gage height, 12 ft (3.7 m), site and datum then in use, from rating curve extended above 3,500 ft³/s (99 m³/s); no flow Mar. 25, 26, 31, 1955. Maximum discharge since construction of El Vado Dam in 1935, 6,010 ft³/s (170 m³/s) May 17, 1941, gage height, 6.89 ft (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, 4,930 ft³/s (140 m³/s) May 22, gage height, 6.51 ft (1.984 m); minimum, 9.1 ft³/s (0.26 m³/s) Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	729	45	920	40	73	101	216	2200	3610	525	679	904
2	728	47	920	39	31	101	201	1970	3050	509	586	904
3	786	46	917	38	31	265	155	1730	2810	481	584	840
4	788	45	917	38	31	478	254	1730	3090	431	508	798
5	753	47	967	38	31	345	309	2220	3160	432	385	686
6	752	47	1020	38	74	74	309	3370	3100	434	386	565
7	747	48	1020	43	118	139	348	3830	2510	241	385	565
8	748	47	1020	40	139	215	578	3950	2520	91	321	379
9	744	47	1020	49	153	211	790	3860	3000	173	244	76
10	307	47	1020	49	153	193	801	2840	3160	309	244	107
11	69	47	1040	78	153	115	1100	2520	2800	304	141	174
12	29	47	1060	107	153	86	1200	2490	2460	225	45	273
13	30	47	1060	110	94	133	977	2290	2230	228	43	188
14	30	47	1050	100	32	133	660	1970	1920	315	45	148
15	38	47	1040	91	73	133	667	1860	1500	396	55	75
16	45	47	1040	88	105	129	1430	1710	1310	270	67	51
17	38	47	1040	88	99	127	2050	1660	1300	207	67	88
18	34	47	1050	100	133	128	2160	1970	1300	481	57	91
19	45	47	1060	111	377	184	2210	2520	1270	625	46	94
20	45	47	1060	113	357	233	2170	3430	1030	621	40	96
21	46	47	1060	93	194	242	2170	4150	844	609	43	96
22	546	47	1060	69	99	242	2250	4640	844	535	68	88
23	985	47	1060	48	97	240	2260	4560	952	445	76	349
24	842	47	1060	30	99	265	2100	4550	1010	431	77	371
25	731	47	1060	29	177	338	1350	4170	873	430	459	304
26	728	47	569	26	257	385	697	3080	731	439	1050	304
27	725	47	83	26	211	369	887	2980	702	439	966	314
28	727	47	113	41	215	369	1360	3080	648	553	840	304
29	726	47	94	56	196	364	1920	3260	649	720	840	421
30	371	387	94	84	---	366	2200	3510	617	749	904	605
31	45	---	67	126	---	280	---	3510	---	764	904	---
TOTAL	14047	1746	26561	2035	1955	6983	35779	91610	55000	13412	11155	10258
MEAN	453	58.2	857	65.6	136	225	1193	2955	1833	433	360	342
MAX	985	387	1060	126	377	478	2260	4640	3610	764	1050	904
MIN	29	45	67	26	31	74	155	1660	617	91	40	51
AC-FT	27860	3460	52680	4040	7840	13850	70970	181700	109100	26600	22130	20350

CAL YR 1979 TOTAL 227353 MEAN 623 MAX 3320 MIN 25 AC-FT 451000
WTR YR 1980 TOTAL 272541 MEAN 745 MAX 4640 MIN 26 AC-FT 540600

08286500 RIO CHAMA ABOVE ABIQUIU RESERVOIR, NM -- Continued

WATER-QUALITY RECORDS

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

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT						
03...	1320	739	147	13.5	66	132
31...	1130	85	204	8.0	42	9.6
DEC						
26...	1245	1080	207	5.0	34	99
JAN						
22...	1215	80	332	2.0	371	80
FEB						
21...	1450	190	481	--	1380	708
MAR						
17...	1200	149	532	4.5	110	44
APR						
17...	1325	2230	367	--	1720	10400
MAY						
12...	1630	2450	314	10.0	220	1460
JUN						
10...	1430	3540	215	--	354	3380
JUL						
16...	1310	367	232	17.0	39	39
AUG						
06...	1140	384	207	17.0	24	25
SEP						
03...	1315	900	236	12.5	153	372
30...	1200	488	253	20.0	111	146

RIO GRANDE BASIN

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 mi² (5,558 km²), of which about 100 mi² (260 km²) is probably noncontributing.
PERIOD OF RECORD.--February 1963 to September 1965 (monthend contents only), October 1965 to current year.

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 km³) between elevations 6,060 ft (1,847 m), invert of outlet tunnel, and 6,350 ft (1,935 m), crest of spillway, based on capacity table effective Jan. 1, 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 km³) was maintained from May 1968 to 1974, when it was increased to 4,000 acre-ft (4.9 km³) and continued until December 1975.
COOPERATION.--Records furnished by Corps of Engineers.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 205,300 acre-ft (253 km³) 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, 198,400 acre-ft (245 km³) June 14, elevation, 6,219.65 ft (1,895.749 m); minimum contents, 41,870 acre-ft (51.6 km³) Jan. 1, elevation 6,165.42 ft (1,879.220 m); minimum elevation, 6,165.15 ft (1,879.138 m) Dec. 27.

Capacity table (elevation, in feet, and contents, in acre-feet)

Oct. 1 to Dec. 31 (Based on survey by Corps of Engineers in 1976)				Jan. 1 to Sept. 30 (Based on survey by Corps of Engineers in 1978)			
6,165	42,900	6,180	72,610	6,165	41,170	6,200	125,400
6,170	51,510	6,200	128,700	6,170	49,900	6,220	199,900
				6,180	70,600		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118200	109400	45000	41870	44730	45630	42960	65050	173500	163000	136300	134600
2	117000	107200	44640	41890	44660	44730	42980	66540	177000	159800	136000	134700
3	115900	105100	44180	41920	44410	44160	42920	67330	179100	156800	135500	134600
4	115100	102800	43920	41970	44180	44060	42890	68380	181700	153700	135400	134200
5	114900	100500	43700	42000	43930	44060	43030	69860	184500	150500	135300	134400
6	114800	98050	43650	42050	43690	43570	43110	73500	187000	147200	135300	134500
7	114700	96080	43590	42120	43540	43130	43100	79460	188800	144400	135300	134600
8	114700	94280	43540	42240	43490	43150	42910	85420	189700	141000	136100	134500
9	114800	92120	43540	42320	43470	43210	43200	92420	191800	139000	136100	134000
10	114800	89450	43520	42480	43470	43210	43010	96020	194400	137500	135800	134100
11	114400	86670	43460	42490	43440	43380	42840	98530	196600	136600	136200	133900
12	114400	83970	43490	42610	43400	43280	43040	100400	197500	136600	135800	133900
13	114400	81140	43510	42760	43400	43040	42910	102600	198200	136400	135400	133900
14	114400	78600	43510	43440	43540	43100	43040	103700	198300	136300	135800	134000
15	114400	76390	43480	44160	43990	43210	43030	105100	197800	136400	135600	134000
16	114400	74260	43460	44570	44930	43260	43970	106200	196500	136700	135400	133900
17	114400	72610	43460	44760	45440	43200	43740	106900	195000	136700	135300	133800
18	114400	70720	43430	44930	45670	43150	47190	107800	193500	137000	135300	133700
19	114400	68600	43430	45120	46900	43130	49090	109700	192600	136900	135100	133700
20	114400	66500	43460	45340	48210	43180	51160	113200	190400	136700	135000	133600
21	114500	64560	43540	45420	48720	43180	53100	118600	188100	136500	134800	133600
22	114400	62640	43600	45390	48810	43160	55330	124800	185800	136400	134800	133500
23	115900	60620	43600	45300	48850	43150	57600	131800	183600	136300	134700	133500
24	117000	58460	43620	45250	48770	43040	59930	138000	181600	136000	134700	133800
25	116600	56350	43650	45070	48280	43100	60940	144300	179500	135800	134700	133500
26	116000	54300	43670	44950	47720	43150	59870	148300	176900	135800	135300	133400
27	115400	52150	43140	44850	47220	43130	59010	150600	174300	135900	134600	133400
28	114800	50010	43300	44750	46690	42990	59310	154500	171300	135900	134200	133400
29	114200	47820	43520	44620	46250	42990	60710	160200	168700	136200	134200	133300
30	113700	45690	43700	44620	---	43030	62990	165600	165700	136300	134400	133400
31	111700	---	43720	44730	---	43060	---	169600	---	136300	134500	---
MAX	118200	109400	45000	45420	48850	45630	62990	169600	198300	163000	136300	134700
MIN	111700	45690	43140	41870	43400	42990	42840	65050	165700	135800	134200	133300
(†)	6194.69	6166.71	6165.51	6167.10	6167.97	6166.13	6176.58	6212.37	6211.34	6203.21	6202.67	6202.35
(‡)	-5600	-66010	-1970	a+2710	+1520	-3190	+19930	+106610	-3900	-29400	-1800	-1100

CAL YR 1979 MAX 146900 MIN 16530 ‡ +26800
WTR YR 1980 MAX 198300 MIN 41870 ‡ a+19400

† 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 SE¼ 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 mi² (5,561 km²), of which about 100 mi² (260 km²) 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 km²) above station. Corps of Engineers gage-height telemeter at station.
AVERAGE DISCHARGE.--9 years (water years 1962-70), 384 ft³/s (10.87 m³/s), 278,200 acre-ft/yr (343 hm³/yr), prior to release of transmountain water; 10 years (water years 1971-80), 448 ft³/s (12.69 m³/s), 324,600 acre-ft/yr (400 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,990 ft³/s (84.7 m³/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 ft³/s (0.01 m³/s) Mar. 17, 1966, Jan. 28, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,270 ft³/s (64.3 m³/s) June 26, gage height, 5.24 ft (1.597 m); minimum, 1.4 ft³/s (0.040 m³/s) Jan 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	506	1200	1140	139	175	512	323	1730	1810	2200	815	840
2	1320	1160	1140	43	175	520	263	1760	1880	2190	815	806
3	1320	1160	1130	39	179	523	252	1780	1970	2190	813	958
4	1090	1150	1090	30	179	523	270	1770	2000	2180	695	883
5	801	1210	1070	30	169	515	291	1770	2040	2180	472	694
6	759	1250	1070	30	179	494	362	1710	2140	2170	387	511
7	735	1150	1070	30	179	322	470	1540	2150	1960	401	506
8	694	1060	1070	30	179	170	555	1390	2150	1900	397	655
9	695	1180	1070	30	179	212	743	1400	2150	1110	387	456
10	712	1450	1070	33	179	224	1050	1720	2150	988	424	146
11	299	1440	1070	46	179	180	1200	1780	2160	709	390	218
12	26	1470	1060	46	172	241	1370	1780	2160	327	399	275
13	26	1480	1070	46	114	208	1170	1790	2160	327	287	182
14	26	1320	1080	56	35	127	907	1790	2160	327	125	155
15	26	1180	1070	71	67	162	578	1730	2160	269	158	94
16	31	1120	1070	49	175	158	1060	1710	2180	164	123	84
17	39	1070	1070	45	169	172	1600	1760	2200	151	86	83
18	46	1060	1070	47	169	172	1710	1770	2200	214	86	82
19	53	1060	1070	49	165	172	1740	1770	2200	549	85	82
20	57	1050	1070	49	165	209	1740	1780	2190	687	86	82
21	62	1050	1070	98	162	280	1750	1790	2190	687	85	82
22	67	1040	1060	160	165	301	1780	1800	2180	652	84	82
23	66	1100	1070	118	143	311	1780	1810	2180	607	86	80
24	550	1150	1060	96	182	314	1680	1830	2180	607	86	273
25	1010	1150	1070	96	363	316	1590	1840	2170	498	85	383
26	1010	1150	1100	96	504	389	1680	1850	2220	424	723	329
27	1010	1140	388	96	504	482	1670	1860	2240	424	1370	309
28	1010	1140	19	96	504	454	1670	1690	2230	425	1020	309
29	1010	1150	28	96	506	414	1680	518	2220	552	807	309
30	1010	1150	30	140	---	414	1680	902	2210	658	807	480
31	1150	---	129	175	---	388	---	1710	---	763	808	---
TOTAL	17216	35440	28644	2205	6215	9879	34614	51830	64230	29089	13392	10428
MEAN	565	1181	974	71.1	214	319	1154	1672	2141	938	432	348
MAX	1320	1480	1140	175	506	523	1780	1860	2240	2200	1370	958
MIN	26	1040	19	30	35	127	252	518	1810	151	84	80
AC-FT	34150	70300	56820	4370	12330	19590	68660	102800	127400	57700	26560	20680
CAL YR 1979 TOTAL	254834		MEAN 698	MAX 1890	MIN 19	AC-FT 505500						
WTR YR 1980 TOTAL	303182		MEAN 828	MAX 2240	MIN 19	AC-FT 601400						

RIO GRANDE BASIN

08287000 RIO CHAMA BELOW ABIQUIU DAM, NM -- Continued

WATER-QUALITY RECORDS

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

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT						
03...	1615	1320	222	15.0	219	781
31...	1515	1200	234	12.0	51	165
DEC						
27...	1330	15	246	1.0	30	1.2
JAN						
22...	1500	154	338	3.0	40	17
FEB						
21...	1328	165	334	7.0	22	9.8
MAR						
17...	1500	166	432	3.0	14	6.3
APR						
18...	1210	1770	452	6.0	74	354
MAY						
16...	1315	1750	291	10.0	99	468
JUN						
11...	1350	2160	245	--	60	350
JUL						
16...	1525	147	251	15.0	132	52
AUG						
06...	1415	392	240	15.0	18	19
SEP						
03...	1545	1000	306	13.0	39	105
30...	1340	592	324	17.0	53	85

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 mi² (1,085 km²).
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 fair. Diversions above station for irrigation of about 3,500 acres (14 km²), 1962 determination. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--48 years, 67.6 ft³/s (1.914 m³/s), 48,980 acre-ft/yr (60.4 hm³/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,140 ft³/s (88.9 m³/s) Apr. 21, 1958, gage height, 6.42 ft (1.957 m), from rating curve extended above 1,300 ft³/s (37 m³/s); maximum gage height, 7.25 ft (2.210 m), from floodmarks, June 19, 1966; minimum discharge 0.2 ft³/s (0.006 m³/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.--Peak discharges above base of 600 ft³/s (17 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
Apr. 23	0145	804	22.8	5.36	1.634	May 21	0030	1,140	32.3	5.81	1.771
May 8	0445	*1,840	52.1	6.33	1.929						

Minimum discharge, 3.0 ft³/s (0.085 m³/s) Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	11	14	16	20	42	34	825	346	15	6.5	4.5			
2	6.0	11	14	16	21	39	46	687	301	15	6.2	4.6			
3	6.0	12	15	14	21	41	40	709	284	14	9.5	4.7			
4	6.4	12	15	14	22	41	47	1060	288	13	7.7	4.9			
5	6.8	12	16	14	22	38	56	1180	283	12	6.2	5.0			
6	6.8	11	15	15	22	40	72	1440	260	11	5.3	5.3			
7	6.6	12	16	16	24	39	82	1500	230	10	5.6	5.4			
8	6.6	14	16	16	25	35	76	1600	223	9.0	5.5	5.6			
9	6.8	15	16	16	23	36	85	1340	255	8.5	6.4	6.0			
10	6.9	15	16	17	23	34	116	1170	222	8.0	7.2	7.8			
11	7.2	15	16	17	24	38	163	1110	195	7.5	7.8	8.2			
12	7.3	14	18	17	25	36	116	916	168	7.0	17	7.4			
13	6.7	13	15	18	25	32	108	690	136	6.5	11	7.0			
14	6.6	13	15	18	28	33	105	722	115	6.0	10	7.0			
15	7.1	14	15	18	34	39	155	735	98	5.5	12	6.9			
16	7.9	13	16	18	36	43	213	644	88	5.0	9.6	6.5			
17	8.1	13	15	17	35	37	241	648	78	4.5	8.7	6.3			
18	8.0	14	15	18	35	35	267	768	66	4.0	6.8	6.2			
19	8.8	15	14	18	50	39	353	829	56	3.8	6.5	6.1			
20	9.2	16	14	18	56	37	476	926	52	3.6	6.2	6.2			
21	11	12	15	16	45	40	534	942	46	3.5	6.1	6.1			
22	13	12	16	15	43	49	633	937	45	5.0	5.9	4.6			
23	12	13	15	15	38	48	694	879	38	5.5	5.9	3.1			
24	12	13	13	15	38	42	672	821	34	6.0	5.9	3.5			
25	12	15	15	17	34	44	472	686	30	6.0	5.9	3.8			
26	12	17	16	18	35	39	417	560	27	5.9	6.0	4.0			
27	12	18	16	19	36	43	552	497	25	5.9	6.2	5.5			
28	12	13	16	19	41	39	695	444	22	5.6	6.9	5.7			
29	12	13	13	21	45	38	784	445	17	5.9	5.5	5.0			
30	11	13	14	22	---	39	838	407	16	6.6	4.2	4.4			
31	12	---	15	21	---	47	---	381	---	6.6	4.2	---			
TOTAL	272.4	404	470	529	926	1222	9142	26498	4044	231.4	224.4	167.3			
MEAN	8.79	13.5	15.2	17.1	31.9	39.4	305	855	135	7.46	7.24	5.58			
MAX	13	18	18	22	56	49	838	1600	346	15	17	8.2			
MIN	5.6	11	13	14	20	32	34	381	16	3.5	4.2	3.1			
AC-FT	540	801	932	1050	1840	2420	18130	52560	8020	459	445	332			
CAL YR 1979	TOTAL	49993.2	MEAN	137	MAX	1100	MIN	5.0	AC-FT	99160					
WTR YR 1980	TOTAL	44130.5	MEAN	121	MAX	1600	MIN	3.1	AC-FT	87530					

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 mi² (8,143 km²), of which about 100 mi² (260 km²) 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 km²). 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 ft³/s (15.32 m³/s), 392,000 acre-ft/yr (483 hm³/yr), prior to release of transmountain water; 10 years (water years 1971-80), 498 ft³/s (14.10 m³/s), 360,800 acre-ft/yr (445 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft³/s (425 m³/s) May 22, 1920, from rating curve extended above 2,300 ft³/s (65 m³/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 ft³/s (420 m³/s). Another major flood occurred in 1884, from newspaper accounts.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,330 ft³/s (123 m³/s) July 8, gage height, 7.16 ft (2.182 m); minimum, 20 ft³/s (0.57 m³/s) Oct. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	1240	1190	196	216	544	375	2570	1910	1980	680	723
2	1100	1200	1200	136	225	545	366	2440	1910	1960	692	689
3	1230	1210	1190	80	224	547	294	2400	1950	1940	709	824
4	1150	1200	1160	75	225	551	324	2710	2090	1940	653	808
5	801	1230	1120	75	224	551	328	2900	2030	1940	462	712
6	703	1310	1130	75	216	553	397	3230	2110	1930	328	500
7	696	1270	1140	75	235	487	482	3700	2080	1880	327	481
8	651	1120	1140	70	234	248	580	3320	2080	2240	373	543
9	646	1110	1150	69	230	252	640	2930	2120	1190	448	618
10	649	1490	1150	69	227	289	1020	2980	2110	976	515	207
11	576	1470	1140	71	230	270	1310	3050	2090	910	427	172
12	92	1470	1140	84	237	233	1540	2860	2050	396	339	277
13	36	1490	1140	88	221	325	1390	2570	2010	353	426	212
14	51	1420	1140	87	155	195	1100	2600	2000	340	142	177
15	54	1200	1140	101	112	187	734	2680	1990	306	117	145
16	51	1170	1140	109	199	205	790	2490	1980	188	130	80
17	79	1100	1140	84	237	231	1680	2490	2000	121	83	60
18	34	1090	1140	90	246	228	1850	2660	2000	113	48	50
19	51	1090	1140	101	244	231	1940	2710	1990	329	39	50
20	63	1090	1150	102	266	229	2010	2830	1980	643	40	50
21	73	1090	1150	94	253	295	2100	2870	1960	661	35	50
22	71	1100	1160	160	250	350	2260	2930	1950	659	29	50
23	72	1120	1160	188	244	362	2340	2870	1940	583	30	50
24	149	1220	1150	135	229	360	2430	2830	1910	576	29	75
25	890	1210	1150	135	288	357	1990	2530	1900	532	32	328
26	967	1210	1170	136	531	383	2020	2310	1920	391	168	313
27	941	1200	939	139	541	483	2110	2220	1980	376	1100	286
28	955	1190	120	138	544	524	2330	2130	1980	357	998	279
29	979	1210	80	138	545	444	2440	1190	1960	394	705	279
30	996	1200	82	145	---	444	2490	922	1960	543	706	323
31	1050	---	74	214	---	449	---	1820	---	616	711	---
TOTAL	15886	36720	31215	3459	7878	11352	41660	80242	59850	27363	11521	9411
MEAN	512	1224	1007	112	270	366	1389	2588	1995	883	372	314
MAX	1230	1490	1200	214	545	553	2490	3320	2120	2240	1100	824
MIN	29	1090	74	69	112	187	294	922	1900	113	29	50
AC-FT	31510	72830	61910	6860	15530	22520	82630	159200	118700	54270	22850	18670
(†)	570	-	-	-	-	-	240	781	807	791	623	686
(‡)	41	-	-	-	-	-	942	728	680	503	484	275
CAL YR 1979	TOTAL	308996	MEAN 847	MAX 2830	MIN 19	AC-FT 612900	†	Diversion, in acre-feet, by Chamita ditch.				
WTR YR 1980	TOTAL	336507	MEAN 919	MAX 3320	MIN 29	AC-FT 667500	‡	Diversion, in acre-feet, by Hernandez ditch.				

08290000 RIO CHAMA NEAR CHAMITA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948 to current year.

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE SUS- PENDE (T/DAY) (80155)
OCT						
04...	1300	1290	223	13.5	342	1190
30...	1530	996	238	11.0	307	826
DEC						
28...	1430	101	434	4.0	36	9.8
JAN						
24...	1330	148	461	4.0	40	16
MAR						
20...	1330	223	483	8.5	44	26
APR						
15...	1255	786	471	8.0	109	231
MAY						
13...	1335	2490	2740	12.0	478	3210
JUL						
17...	1300	109	355	23.0	172	51
SEP						
04...	1350	841	298	17.0	197	447
29...	1300	281	332	22.0	104	79

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 SE&SW¼, 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 CHILE 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 1980

Diversion	APR	MAY	JUN	JUL	AUG	SEP	OCT
08286300 Monastery pump	0	0.3	0.6	1.1	0.9	0.3	0.2
08287020 Abeyta Trujillo ditch	138	416	168	87	191	136	90
08287040 Winfield Morton pump	0	0	0	0	10	23	0
08287060 Jose Pablo Gonzales ditch	561	1040	666	579	571	538	356
08287150 Gonzales ditch	a0	2.5	3.9	2.2	6.2	3.4	a2.7
08287200 La Puente ditch	0	277	a280	211	158	82	2.9
08287250 Quintana ditch	20	76	56	96	64	32	25
08287270 Valentine Martinez ditch	.2	12	7.5	8.8	7.2	3.0	.2
08287300 Mariano ditch	57	130	a340	155	107	148	24
08287400 Ferran ditch	.3	92	172	61	3.9	.3	.2
08287600 Tierra Azul ditch	241	374	408	365	611	285	.5
08288050 Jose V. Martinez ditch	230	298	268	236	146	99	65
08288100 Manzanares and Montoya ditch	2.1	21	17	7.2	12	5.6	5.5
08288150 Rio de Chama ditch	570	640	580	600	a480	334	207
08288200 Martinez and Duranes ditch (upper)	502	914	974	953	976	911	721
08288250 Martinez and Duranes ditch (lower)	530	560	770	860	b	b	b
08288300 Chili ditch	117	595	293	360	412	179	427
08289500 Chamita ditch	240	781	807	791	623	686	474
08289800 Hernandez ditch	942	728	680	503	484	275	393
08290100 Salazar ditch	139	457	414	376	418	199	217

a Estimated.

b No record.

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 mi² (220 km²), approximately.

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1312.

Prior to October 1953, published as Rio Santa Cruz at Cundiyo.

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 December to April, which are fair. Diversions for irrigation of about 1,000 acres (4.05 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--50 years, 29.0 ft³/s (0.821 m³/s), 21,010 acre-ft/yr (25.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,420 ft³/s (68.5 m³/s) Sept. 24, 1931, gage height, 7.8 ft (2.38 m), site and datum then in use, from rating curve extended above 170 ft³/s (4.81 m³/s); minimum, 0.19 ft³/s (0.005 m³/s) Mar. 13, 1954, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Apr. 22	0215	121 3.43	2.39 0.728	July 22	1900	132 3.74	2.46 0.750
Apr. 30	0415	109 3.09	2.34 .713	Aug. 8	1930	a*1,030 29.2	4.42 1.347
June 12	0530	224 6.34	2.73 .832				

a From rating curve extended above 380 ft³/s (11 m³/s).

Minimum discharge, 4.4 ft³/s (0.12 m³/s) Nov. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	12	9.0	9.0	10	11	13	89	170	67	17	9.3
2	11	9.4	10	10	11	10	15	76	169	64	16	9.5
3	11	9.5	11	9.5	11	11	14	74	166	60	16	8.5
4	11	13	11	8.0	11	11	16	77	165	56	13	8.1
5	11	11	11	8.5	11	11	18	93	171	49	13	8.5
6	11	11	11	9.0	11	12	20	111	174	46	16	15
7	10	13	11	9.3	12	10	25	116	175	54	18	16
8	10	14	11	9.4	10	12	20	140	181	52	70	12
9	11	12	11	9.6	8.0	13	25	131	195	44	48	16
10	11	13	12	9.6	8.0	13	30	130	200	41	25	27
11	11	9.6	11	9.4	8.5	15	40	135	206	37	18	19
12	11	9.6	9.9	9.8	8.5	14	38	119	211	36	15	16
13	11	7.5	10	10	9.0	13	36	108	209	33	16	15
14	9.9	9.3	9.0	10	9.0	14	35	106	206	29	18	14
15	9.4	10	10	10	9.5	15	38	108	198	28	39	11
16	10	11	10	9.7	9.0	16	53	109	180	29	18	10
17	11	11	11	9.4	9.0	14	67	113	172	28	15	11
18	11	13	11	9.6	9.5	13	75	119	170	25	14	11
19	11	13	10	9.7	9.5	15	91	123	164	25	13	11
20	11	11	10	9.4	9.5	14	97	136	152	24	12	9.8
21	13	9.0	10	8.8	9.0	15	102	159	141	24	11	8.5
22	12	6.9	9.9	8.5	9.0	17	109	179	131	27	12	7.7
23	13	9.8	9.5	8.5	9.0	16	101	185	120	26	12	9.4
24	14	12	9.0	9.0	9.0	17	91	190	110	26	12	8.9
25	13	13	10	10	9.0	16	76	190	103	23	14	8.5
26	13	13	9.6	10	9.5	15	68	174	97	21	13	8.1
27	12	11	9.9	10	10	15	73	164	91	18	11	9.4
28	12	7.9	9.5	10	11	15	81	162	84	18	10	8.9
29	12	7.5	9.0	11	12	14	98	168	76	16	9.8	10
30	11	8.0	8.5	11	---	15	100	168	72	14	9.4	8.9
31	11	---	8.5	10	---	18	---	171	---	20	9.4	---
TOTAL	350.3	321.0	313.3	295.7	281.5	430	1665	4123	4659	1060	553.6	346.0
MEAN	11.3	10.7	10.1	9.54	9.71	13.9	55.5	133	155	34.2	17.9	11.5
MAX	14	14	12	11	12	18	109	190	211	67	70	27
MIN	9.4	6.9	8.5	8.0	8.0	10	13	74	72	14	9.4	7.7
AC-FT	695	637	621	587	558	853	3300	8180	9240	2100	1100	686

CAL YR 1979 TOTAL 21881.4 MEAN 59.9 MAX 623 MIN 6.9 AC-FT 43400
WTR YR 1980 TOTAL 14398.4 MEAN 39.3 MAX 211 MIN 6.9 AC-FT 28560

NOTE.--No gage-height record Jan. 25 to Mar. 21.

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 mi² (88.3 km²).

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 hm³) at elevation 6,826.6 ft (2,080.75 m), crest of ogee weir spillway, including 237 acre-ft (292,000 m³) 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 m³) 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 hm³) 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, 2,040 acre-ft (2.52 hm³) May 22-26, 28-31, June 2-20; maximum elevation, 6,826.92 ft (2,080.845 m) June 11; minimum contents, 1,110 acre-ft (1.37 hm³) Sept. 30, elevation, 6,807.76 ft (2,075.005 m).

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Bureau of Reclamation in 1976)

6,800	838	6,820	1,660
6,810	1,200	6,830	2,230

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1300	1220	1340	1500	1640	1790	1950	2030	2030	2030	1500	1200
2	1290	1210	1350	1500	1640	1790	1960	2030	2040	2030	1480	1190
3	1280	1200	1360	1500	1650	1800	1960	2030	2040	2020	1460	1170
4	1270	1190	1360	1510	1650	1800	1970	2030	2040	2020	1430	1150
5	1270	1190	1370	1510	1650	1810	1980	2030	2040	2010	1410	1140
6	1270	1200	1370	1520	1660	1810	2000	2030	2040	1990	1390	1130
7	1270	1200	1380	1520	1660	1820	2010	2030	2040	1980	1380	1120
8	1260	1220	1380	1530	1670	1820	2020	2030	2040	1970	1370	1100
9	1250	1230	1390	1530	1680	1830	2020	2030	2040	1960	1370	1100
10	1240	1230	1390	1540	1680	1830	2020	2030	2040	1950	1370	1130
11	1250	1240	1400	1540	1690	1840	2020	2030	2040	1950	1360	1150
12	1260	1240	1400	1550	1690	1840	2020	2030	2040	1920	1360	1160
13	1260	1250	1410	1550	1700	1840	2020	2030	2040	1980	1350	1160
14	1260	1250	1410	1560	1700	1850	2020	2030	2040	1840	1360	1160
15	1270	1260	1420	1560	1710	1860	2020	2030	2040	1820	1370	1170
16	1280	1270	1420	1570	1720	1860	2020	2030	2040	1820	1390	1170
17	1280	1270	1420	1570	1720	1860	2020	2030	2040	1820	1400	1170
18	1290	1280	1430	1580	1730	1870	2020	2030	2040	1810	1410	1170
19	1290	1290	1440	1580	1740	1880	2030	2030	2040	1790	1420	1170
20	1290	1290	1440	1590	1740	1880	2030	2030	2040	1750	1420	1160
21	1290	1300	1440	1590	1750	1890	2030	2030	2030	1720	1400	1160
22	1290	1300	1450	1590	1750	1890	2030	2040	2030	1700	1370	1150
23	1280	1300	1460	1600	1760	1900	2030	2040	2030	1700	1350	1150
24	1260	1310	1460	1600	1760	1910	2030	2040	2030	1690	1330	1140
25	1250	1320	1460	1610	1760	1910	2030	2040	2030	1690	1310	1140
26	1240	1320	1470	1610	1770	1920	2030	2040	2030	1680	1290	1130
27	1240	1330	1470	1620	1770	1920	2030	2030	2030	1650	1260	1120
28	1240	1330	1480	1620	1780	1930	2030	2040	2030	1600	1240	1120
29	1230	1340	1480	1620	1780	1940	2030	2040	2030	1600	1230	1110
30	1230	1340	1490	1630	---	1940	2030	2040	2030	1560	1220	1110
31	1220	---	1490	1630	---	1940	---	2040	---	1530	1210	---
MAX	1300	1340	1490	1630	1780	1940	2030	2040	2040	2030	1500	1200
MIN	1220	1190	1340	1500	1640	1790	1950	2030	2030	1530	1210	1100
(†)	6810.52	6813.17	6816.55	6819.45	6822.34	6825.26	6826.70	6826.81	6826.69	6817.30	6810.22	6807.76
(‡)	-90	+120	+150	+140	+150	+160	+90	+10	-10	-500	-320	-100
CAL YR 1979	MAX 2060	MIN 1190	‡ +290									
WTR YR 1980	MAX 2040	MIN 1100	‡ -200									

† 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 Nambé Indian Reservation, in outlet conduits of Nambé Falls Dam, 300 ft (91 m) upstream from Nambé Falls, 2.6 mi (4.2 km) upstream from Rio En Medio, 4.4 mi (7.1 km) southeast of Nambé Pueblo and 5.4 mi (8.7 km) southeast of Nambé.

DRAINAGE AREA.--34.1 mi² (88.3 km²).

PERIOD OF RECORD.--January 1979 to current year.

GAGE.--Totalizing flowmeters in each of three outlet conduits in Nambé Falls Dam.

REMARKS.--Flow regulated by Nambé 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 Nambé Falls Dam, record computed at site 1,100 ft (335 m) downstream, site of discontinued station 58294300, Rio Nambé at Nambé Falls.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 312 ft³/s (8.84 m³/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 Nambé Falls Dam, 250 ft³/s, 7.08 m³/s, June 9, 1979); minimum daily discharge, 0.45 ft³/s (0.013 m³/s) many days during 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 89 ft³/s (2.52 m³/s) June 9, gage height, 1.51 ft (0.460 m); minimum daily discharge, 0.45 ft³/s (0.013 m³/s) many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	5.9	.45	.45	.45	.45	.59	26	47	28	14	9.7
2	8.0	5.9	.45	.45	.45	.45	.59	24	45	26	14	8.7
3	8.0	5.9	.45	.45	.45	.45	.59	25	45	26	16	11
4	8.0	5.9	.45	.45	.45	.51	.59	23	48	22	18	14
5	4.1	2.8	.45	.45	.45	.54	.59	27	51	22	16	14
6	4.1	.52	.45	.45	.45	.54	.59	32	50	27	14	14
7	4.1	.52	.45	.45	.45	.54	.59	37	51	27	16	14
8	7.0	.52	.45	.45	.45	.54	2.0	44	58	27	17	14
9	9.0	.52	.45	.45	.45	.54	7.8	42	72	26	18	14
10	4.2	.51	.45	.45	.45	.56	9.1	40	74	22	19	11
11	.56	.51	.45	.45	.45	.56	11	44	79	19	14	8.7
12	.56	.51	.45	.45	.45	.56	9.6	39	67	34	12	8.7
13	.71	.51	.45	.45	.45	.56	8.7	40	72	45	18	8.7
14	.57	.52	.45	.45	.45	.56	8.7	40	69	45	6.3	8.7
15	.50	.51	.45	.45	.45	.56	7.6	38	65	28	2.0	8.7
16	.50	.52	.45	.45	.45	.56	8.7	32	63	13	2.0	8.7
17	.50	.52	.45	.45	.45	.56	9.6	29	63	12	2.0	8.7
18	.50	.52	.45	.45	.45	.57	11	29	63	12	2.0	8.7
19	2.2	.52	.45	.45	.45	.58	14	32	65	27	2.0	8.7
20	4.3	.52	.45	.45	.45	.58	15	38	60	33	7.8	8.7
21	4.3	.51	.45	.45	.45	.58	17	44	58	33	16	9.1
22	4.2	.51	.45	.45	.45	.58	22	51	54	21	16	9.1
23	8.2	.51	.45	.45	.45	.58	24	54	51	13	17	9.1
24	11	.51	.45	.45	.45	.59	30	54	48	12	16	8.7
25	11	.51	.45	.45	.45	.59	24	51	44	12	16	8.7
26	8.0	.51	.45	.45	.45	.59	22	50	42	12	16	8.7
27	4.2	.48	.45	.45	.45	.59	20	45	39	27	16	8.7
28	4.2	.45	.45	.46	.45	.59	21	44	37	21	16	8.7
29	5.2	.45	.45	.45	.45	.59	25	48	34	27	12	8.7
30	5.9	.45	.45	.45	---	.59	28	45	31	30	8.7	7.0
31	5.9	---	.45	.45	---	.59	---	47	---	14	8.7	---
TOTAL	147.50	39.04	13.95	13.96	13.05	17.23	359.93	1214	1645	743	388.5	296.9
MEAN	4.76	1.30	.45	.45	.45	.56	12.0	39.2	54.8	24.0	12.5	9.90
MAX	11	5.9	.45	.46	.45	.59	30	54	79	45	19	14
MIN	.50	.45	.45	.45	.45	.45	.59	23	31	12	2.0	7.0
AC-FT	293	77	28	28	26	34	714	2410	3260	1470	771	589
CAL YR 1979	TOTAL	8352.84	MEAN	22.9	MAX	236	MIN	.45	AC-FT	16570		
WTR YR 1980	TOTAL	4892.06	MEAN	13.4	MAX	79	MIN	.45	AC-FT	9700		

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 mi² (37,040 km²), approximately, including 2,940 mi² (7,610 km²) 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 Reservoir (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 km²) in Colorado and 75,000 acres (300 km²) in New Mexico. Gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,400 ft³/s (691 m³/s) May 23, 1920; maximum gage height, 14.5 ft (4.42 m) Sept. 29, 1904, present site and datum; minimum daily discharge, 60 ft³/s (1.70 m³/s) July 4, 5, 1902.

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.--Peak discharges above base of 5,200 ft³/s (150 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 25	1245	*8270 234	8.21 2.502	July 8	0600	5870 166	6.98 2.128
June 12	1315	7650 217	7.91 2.411	Aug. 13	2315	5380 152	6.70 2.042

Minimum discharge, 208 ft³/s (5.89 m³/s) Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	340	1680	1530	611	808	1200	1060	4840	6630	4070	1160	957
2	1160	1600	1540	658	795	1210	1050	4990	6740	3970	1140	955
3	1500	1600	1580	545	792	1200	968	4940	6630	3880	1200	988
4	1490	1590	1560	532	795	1200	996	5150	6450	3880	1170	1050
5	1130	1620	1570	566	792	1200	997	5280	6450	3890	950	924
6	1070	1740	1570	588	781	1200	1080	6080	6660	3810	762	726
7	1010	1730	1560	612	810	1140	1180	6400	6820	3730	744	676
8	958	1580	1600	617	829	929	1300	6950	6930	4030	846	682
9	946	1550	1610	621	811	853	1360	6980	7130	2820	861	866
10	955	1890	1630	632	707	902	1740	7060	7370	2460	1180	550
11	953	1910	1650	646	767	898	1930	7300	7400	2340	946	441
12	435	1860	1670	668	797	858	2260	6980	7490	1680	938	525
13	308	1880	1660	673	785	932	2190	6360	7420	1470	1220	515
14	307	1850	1650	693	761	814	1870	6180	7200	1340	900	425
15	305	1610	1620	714	738	796	1600	6100	6630	1230	680	433
16	301	1580	1630	744	835	808	1480	5990	6100	1040	660	449
17	290	1490	1630	714	852	837	2540	5970	5790	877	600	381
18	304	1500	1630	715	847	842	2740	5900	5560	786	457	339
19	378	1530	1630	746	865	850	2990	5770	5420	840	384	312
20	330	1550	1610	744	922	859	3190	5950	5270	1180	348	291
21	348	1530	1630	705	926	894	3440	6340	5170	1140	330	265
22	382	1460	1650	741	910	976	3850	6940	5170	1170	318	255
23	376	1420	1640	780	894	1030	4260	7390	4990	1220	297	262
24	380	1540	1620	682	841	1030	4600	7850	4730	1130	276	268
25	1160	1550	1640	650	857	1040	4300	7980	4540	1090	270	441
26	1320	1550	1630	693	1100	1070	4340	7780	4420	872	255	515
27	1350	1560	1620	708	1150	1230	4240	7370	4390	840	1200	478
28	1390	1540	682	718	1170	1300	4430	6870	4330	890	1340	465
29	1400	1530	550	715	1190	1170	4500	5820	4280	864	984	465
30	1440	1520	506	765	---	1150	4620	5230	4180	990	989	457
31	1480	---	478	805	---	1140	---	6130	---	1060	967	---
TOTAL	25386	48540	45776	21001	25127	31558	77101	196870	178290	60589	24372	16356
MEAN	819	1618	1477	677	866	1018	2570	6351	5943	1954	786	545
MAX	1500	1910	1670	805	1190	1300	4620	7980	7490	4070	1340	1050
MIN	290	1420	478	532	707	796	968	4840	4180	786	255	255
AC-FT	50350	96280	90800	41660	49840	62600	152900	390500	353600	120200	48340	32440
CAL YR 1979 TOTAL	924704			2533	MAX 11500	MIN 281	AC-FT 1834000					
WTR YR 1980 TOTAL	750966			MEAN 2052	MAX 7980	MIN 255	AC-FT 1490000					

RIO GRANDE BASIN
08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 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, 396 micromhos Aug. 29; minimum daily, 162 micromhos June 8.

WATER TEMPERATURES: Maximum, 26.0°C July 17; minimum, 0.0°C on several days in December and January.

SEDIMENT CONCENTRATIONS: Maximum daily, 5,980 mg/L July 8; minimum daily, 26 mg/L Oct. 14, 15, Aug. 26.

SEDIMENT LOADS: Maximum daily, 75,500 tons (68,500 tonnes) July 8; minimum daily, 18 tons (16 tonnes) Aug. 26.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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 12...	0900	429	325	8.3	18.0	11.5	38	9.0	11	120	
NOV 07...	1045	1750	295	8.3	9.5	9.0	37	9.4	22	110	
DEC 28...	1228	638	338	8.0	3.0	5.0	10	10.6	14	130	
JAN 29...	1100	698	350	7.9	7.5	4.0	5.3	12.0	8	120	
FEB 26...	1000	1130	312	8.3	10.0	3.5	48	11.9	20	110	
MAR 26...	0920	1080	315	8.4	10.5	7.5	14	10.6	15	120	
APR 16...	0945	1440	310	8.1	18.0	11.0	28	9.4	8	120	
MAY 07...	0930	6500	218	8.3	21.0	12.0	88	9.0	44	79	
JUN 04...	1000	6590	184	7.8	22.5	13.0	37	9.0	16	69	
JUL 09...	0920	2910	238	8.2	32.0	17.0	13	8.4	11	81	
AUG 06...	0925	774	291	8.3	29.0	20.5	27	8.2	19	100	
SEP 10...	0945	540	350	8.3	17.0	16.5	180	8.0	38	120	
DATE		HARD- NESS, NONCAR- BONATE (MG/L AS 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 (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)
OCT 12...	7	37	5.9	21	.8	2.5	110	53	4.8	.4	
NOV 07...	30	36	5.8	14	.6	2.5	84	51	3.6	.2	
DEC 28...	23	41	7.4	20	.8	2.7	110	55	6.8	.5	
JAN 29...	12	38	6.7	22	.9	2.8	110	53	6.6	.4	
FEB 26...	25	35	6.4	17	.7	2.4	89	55	5.3	.3	
MAR 26...	27	37	6.7	19	.8	2.6	93	62	6.0	.5	
APR 16...	33	36	7.3	20	.8	2.4	87	68	5.7	.3	
MAY 07...	17	24	4.5	10	.5	2.0	62	32	2.2	.2	
JUN 04...	11	21	4.0	7.7	.4	1.6	58	25	2.0	.2	
JUL 09...	17	25	4.6	11	.5	2.3	64	36	3.4	.2	
AUG 06...	20	31	5.4	14	.6	2.5	80	41	4.4	1.3	
SEP 10...	23	38	6.5	19	.8	2.9	99	54	5.4	.4	

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	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 12...	19	205	210	11	.08	.10	.020	.030	.59
NOV 07...	15	191	180	81	.20	.20	.030	.000	.75
DEC 28...	24	234	225	26	.31	.29	.060	.000	1.0
JAN 29...	25	223	222	31	.45	.40	.040	.030	.25
FEB 26...	21	198	197	191	.24	.26	.070	.000	.64
MAR 26...	20	211	210	46	.13	.15	.020	.020	.59
APR 16...	20	208	213	69	.10	.10	.020	.000	1.5
MAY 07...	16	138	129	362	.10	.19	.040	.040	1.3
JUN 04...	15	120	112	54	.07	.06	.160	.010	.94
JUL 09...	16	161	137	152	.12	.08	.030	.040	.55
AUG 06...	19	182	167	40	.02	.04	.000	.000	.51
SEP 10...	18	221	204	269	.03	.05	.000	.010	1.1
DATE	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHOPH OSPHATE DISSOL. (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- PENDE (MG/L AS C) (00689)
OCT 12...	.69	.060	.020	40	10	--	5.8	4.3	1.0
NOV 07...	.98	.120	.030	40	10	5	--	5.4	.2
DEC 28...	1.4	.090	.040	40	20	--	5.9	5.1	.5
JAN 29...	.74	.040	.060	40	20	--	3.8	6.1	.6
FEB 26...	.95	.180	.050	40	10	20	--	6.4	1.1
MAR 26...	.74	.090	.040	70	10	--	4.3	3.7	3.1
APR 16...	1.6	.130	.040	30	30	--	3.7	5.5	1.1
MAY 07...	1.4	.310	.030	60	60	9	--	6.1	3.7
JUN 04...	1.2	.130	.030	20	80	--	--	6.0	1.5
JUL 09...	.70	.180	.010	20	10	--	8.5	7.9	1.1
AUG 06...	.53	.080	.040	50	10	20	--	4.7	.5
SEP 10...	1.1	.200	.010	0	40	--	6.1	4.4	1.8

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
OCT											
12...	0900	--	--	--	--	40	--	--	--	--	--
NOV											
07...	1045	3	2	400	70	40	0	<1	4	0	3
DEC											
28...	1228	--	--	--	--	40	--	--	--	--	--
JAN											
29...	1100	--	--	--	--	40	--	--	--	--	--
FEB											
26...	1000	4	2	400	60	40	1	<1	10	0	3
MAR											
26...	0920	--	--	--	--	70	--	--	--	--	--
APR											
16...	0945	--	--	--	--	30	--	--	--	--	--
MAY											
07...	0930	4	1	400	40	60	0	<1	0	0	12
JUN											
04...	1000	--	--	--	--	20	--	--	--	--	--
JUL											
09...	0920	--	--	--	--	20	--	--	--	--	--
AUG											
06...	0925	3	2	100	50	50	0	<1	10	20	3
SEP											
10...	0945	--	--	--	--	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)
OCT										
12...	--	--	--	--	10	--	--	--	--	--
NOV										
07...	<3	7	3	3600	<10	7	0	120	5	.1
DEC										
28...	--	--	--	--	20	--	--	--	--	--
JAN										
29...	--	--	--	--	20	--	--	--	--	--
FEB										
26...	<3	17	0	4100	10	11	0	270	20	.0
MAR										
26...	--	--	--	--	10	--	--	--	--	--
APR										
16...	--	--	--	--	30	--	--	--	--	--
MAY										
07...	<3	10	4	6900	60	10	1	360	9	.2
JUN										
04...	--	--	--	--	80	--	--	--	--	--
JUL										
09...	--	--	--	--	10	--	--	--	--	--
AUG										
06...	<3	7	1	1100	<10	3	2	90	20	.0
SEP										
10...	--	--	--	--	40	--	--	--	--	--

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 SOLVED (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 12...	--	4	--	--	--	--	--	--	--	--
NOV 07...	.1	0	7	0	0	0	0	0	40	5
DEC 28...	--	0	--	--	--	--	0	--	--	--
JAN 29...	--	16	--	--	--	--	--	--	--	--
FEB 26...	.0	6	6	0	0	0	0	0	30	6
MAR 26...	--	13	--	--	--	--	0	--	--	--
APR 16...	--	6	--	--	--	--	--	--	--	--
MAY 07...	.0	3	9	0	0	0	0	0	40	4
JUN 04...	--	0	--	--	--	--	0	--	--	--
JUL 09...	--	3	--	--	--	--	--	--	--	--
AUG 06...	.0	15	3	0	0	0	0	0	30	<3
SEP 10...	--	5	--	--	--	--	0	--	--	--

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
AUG 06...	0925	.0	4.9	145	3600	3	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)
AUG 06...	10	5	1900	10	88	.00	9	

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	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 12...	0900	11	3.9	3.3	3.0	3.8	3.0	3.9	.07	2.9
APR 16...	0945	69	5.0	5.8	4.0	3.1	4.0	3.1	.06	1.9

RIO GRANDE BASIN

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
------	------	-----------------------------------	---------------------------------------	-----------------------------------------------	------------------------------------	------------------------------------	------------------------------------	----------------------------------------------	---------------------------------------------

AUG	06...	0925	.00	.00	.0	.00	.00	.00	.00
-----	-------	------	-----	-----	----	-----	-----	-----	-----

DATE	TIME	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)
------	------	------------------------------------------------	---------------------------------------	---------------------------------------	------------------------------------------------	----------------------------------------------------------	---------------------------------------	-----------------------------------------------	-------------------------------------------------------	---------------------------------------------------------

AUG	06...	.00	.00	.00	.00	.00	.00	.00	.00
-----	-------	-----	-----	-----	-----	-----	-----	-----	-----

DATE	TIME	METHYL TRI- THION, TOTAL (UG/L) (39790)	PARA- THION, TOTAL (UG/L) (39540)	TOX- APHENE, TOTAL (UG/L) (39400)	TOTAL TRI- THION TOTAL (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	06...	.00	.00	0	.00	.00	.00	.00	.0	.00
-----	-------	-----	-----	---	-----	-----	-----	-----	----	-----

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	
OCT	12...	0900	>600	350
NOV	07...	1045	900	140
DEC	28...	1228	58	39
JAN	29...	1100	400	57
FEB	26...	1000	290	220
MAR	26...	0920	190	45
APR	16...	0945	270	170
MAY	07...	0930	610	1700
JUN	04...	1000	240	140
JUL	09...	0920	1300	1100
AUG	06...	0925	2100	390
SEP	10...	0945	1100	2000

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 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 7,79	MAR 26,80	MAY 7,80	JUN 4,80				
TIME	1045	0920	0930	1000				
TOTAL CELLS/ML	260	5000	670	830				
DIVERSITY: DIVISION	0.0	1.5	1.4	1.4				
..CLASS	0.0	1.5	1.4	1.4				
..ORDER	0.7	2.3	2.1	2.1				
...FAMILY	0.7	3.2	2.9	2.4				
....GENUS	1.5	3.3	2.9	2.8				
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	13	2	--	-
...HYDRODICTYACEAE								
...PEDIASTRUM	--	-	--	-	--	-	--	-
...MICRACTINIACEAE								
...MICRACTINIUM	--	-	--	-	100#	15	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	--	-	--	-
...CHLORELLA	--	-	480	10	--	-	--	-
...CHODATELLA	--	-	--	-	--	-	--	-
...DICTYOSPHAERIUM	--	-	--	-	--	-	--	-
...KIRCHNERIELLA	--	-	*	0	--	-	--	-
...OOCYSTIS	--	-	--	-	--	-	--	-
...SELENASTRUM	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
...SCENEDESMUS	--	-	190	4	52	8	260#	31
...TETRASTRUM	--	-	74	1	--	-	--	-
..TETRASPORALES								
...COCCOMYXACEAE								
...ELAKATOTHRIX	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
...CARTERIA	--	-	--	-	26	4	--	-
...CHLAMYDOMONAS	--	-	93	2	--	-	26	3
..ZYGNEMATALES								
...DESMIDIACEAE								
...COSMARIUM	--	-	--	-	--	-	--	-
...STAUSTRUM	--	-	--	-	--	-	--	-
CHRYSTOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
...COSCINODISCACEAE								
...CYCLOTELLA	100#	40	--	-	120#	17	78	9
...MELOSIRA	100#	40	--	-	--	-	52	6
...STEPHANODISCUS	--	-	--	-	--	-	39	5
...THALASSIOSIRA	--	-	430	9	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
...ACHNANTHES	--	-	*	0	--	-	--	-
...COCONEIS	--	-	37	1	--	-	--	-
...RHOICOSPHEA	--	-	*	0	--	-	--	-
...CYMBELLACEAE								
...CYMBELLA	--	-	56	1	--	-	--	-
...EPITHEMIA	--	-	*	0	--	-	--	-
...DIATOMACEAE								
...DIATOMA	--	-	37	1	--	-	--	-
...EUNOTIACEAE								
...EUNOTIA	--	-	*	0	--	-	--	-
...FRAGILARIACEAE								
...FRAGILARIA	--	-	260	5	78	12	160#	19
...SYNEDRA	--	-	37	1	--	-	13	2
...GOMPHONEMATAACEAE								
...GOMPHONEMA	--	-	110	2	--	-	--	-
...NAVICULACEAE								
...NAVICULA	52#	20	170	3	39	6	13	2
...NITZSCHACEAE								
...NITZSCHIA	--	-	450	9	140#	21	90	11
...SURIPELLACEAE								
...SURIPELLA	--	-	*	0	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

RIO GRANDE BASIN
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 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE TIME	NOV 7,79 1045		MAR 26,80 0920		MAY 7,80 0930		JUN 4,80 1000	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHAMAESIPHONALES								
...CHAMAESIPHONACEAE								
....ENTOPHYSALIS	--	-	--	-	--	-	--	-
...CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	1500#	30	100#	15	100	13
....COCCOCHLORIS	--	-	--	-	--	-	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	93	2	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	910#	18	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
..EUGLENOPHYCEAE								
...EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	--	-	--	-	--	-

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 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	JUL 9,80	AUG 6,80	SEP 10,80
TIME	0920	0925	0945
TOTAL CELLS/ML	2200	210000	4900
DIVERSITY: DIVISION	1.5	1.5	1.4
..CLASS	1.5	1.5	1.4
..ORDER	2.1	1.7	2.3
...FAMILY	2.9	2.2	2.7
....GENUS	2.9	3.0	3.3
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML PER- CENT
CHLOROPHYTA (GREEN ALGAE)			
..CHLOROPHYCEAE			
...CHLOROCOCCALES			
...CHARACIACEAE			
....SCHROEDERIA	--	--	--
...HYDRODICTYACEAE			
....PEDIASTRUM	210	9	--
...MICRACTINIACEAE			
....MICRACTINIUM	--	16000	8
...OOCYSTACEAE			
....ANKISTRODESMUS	26	1	66
....CHLORELLA	13	1	--
....CHODATELLA	--	*	0
...DICTYOSPHAERIUM	--	22000	10
...KIRCHNERIELLA	--	--	280
...OOCYSTIS	52	2	2000
...SELENASTRUM	--	--	*
...SCENEDESMACEAE			
...SCENEDESMUS	490#	22	17000
...TETRASTRUM	--	--	--
..TETRASPORALES			
...COCCOMYXACEAE			
...ELAKATOTHRIX	--	--	*
..VOLVOCALES			
...CHLAMYDOMONADACEAE			
...CARTERIA	--	--	--
...CHLAMYDOMONAS	26	1	*
..ZYGNEMATALES			
...DESMIDIACEAE			
...COSMARIUM	13	1	--
...STAUSTRUM	--	--	*
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE			
...CENTRALES			
...COSCINODISCACEAE			
....CYCLOTELLA	530#	24	21000
....MELOSIRA	--	--	*
...STEPHANODISCUS	--	--	*
...THALASSIOSIRA	--	--	--
..PENNALES			
...ACHNANTHACEAE			
...ACHNANTHES	--	--	--
...COCCONEIS	--	--	--
...RHOICOSPHENIA	--	--	--
...CYMBELLACEAE			
....CYMBELLA	--	--	49
....EPITHEMIA	--	--	110
...DIATOMACEAE			
....DIATOMA	--	--	33
...EUNOTIACEAE			
....EUNOTIA	--	--	--
...FRAGILARIACEAE			
....FRAGILARIA	150	7	--
....SYNEDRA	13	1	--
...GOMPHONEMACEAE			
....GOMPHONEMA	13	1	--
...NAVICULACEAE			
....NAVICULA	39	2	*
...NITZSCHIACEAE			
....NITZSCHIA	240	11	16000
...SURIRELLACEAE			
....SURIRELLA	--	--	--

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

RIO GRANDE BASIN

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 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE TIME	JUL 9,80 0920		AUG 6,80 0925		SEP 10,80 0945	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...CHAMAESIPHONALES						
...CHAMAESIPHONACEAE						
....ENTOPHYSALIS	--	-	--	-	330	7
...CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	--	-	62000#	29	1200#	24
....ANACYSTIS	360#	16	44000#	21	950#	20
....COCCOCHLORIS	--	-	5000	2	--	-
..HORMOGONALES						
...NOSTOCACEAE						
....ANABAENA	--	-	--	-	--	-
...OSCILLATORIACEAE						
....OSCILLATORIA	--	-	--	-	290	6
EUGLENOPHYTA (EUGLENOIDS)						
..EUGLENOPHYCEAE						
...EUGLENALES						
...EUGLENACEAE						
....TRACHELOMONAS	13	1	*	0	--	-

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 1979 TO SEPTEMBER 1980

DATE	TIME	PERIPHYTON		CHLOR-A PERI- PHYTON (MG/M2) (70957)	CHLOR-B PERI- PHYTON (MG/M2) (70958)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)	SAMPLING METHOD
		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)			
NOV 07...	1045	25	.080	.080	.000	.000	-- Polyethylene strip
MAR 26...	0920	30	.470	.390	.160	.020	500 "
APR 16...	0945	21	1.50	1.34	.630	.360	254 "
AUG 06...	0925	28	1.73	1.34	.390	.370	1000 "

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (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 12...	0900	429	11.5	103	119	40	46	48	49	51
NOV 07...	1045	1750	9.0	1940	9170	3	3	3	3	4
DEC 28...	1228	638	5.0	58	100	--	--	--	--	--
JAN 29...	1100	698	4.0	69	130	--	--	--	--	--
FEB 26...	1000	1130	3.5	1200	3660	4	5	6	8	9
MAR 26...	0920	1080	7.5	52	152	--	--	--	--	--
APR 16...	0945	1440	11.0	104	404	36	40	44	51	60
MAY 07...	0930	6500	12.0	535	9390	29	35	--	52	--
JUN 04...	1000	6590	13.0	239	4250	18	21	25	30	36
JUL 08...	0650	5460	15.0	18500	273000	54	64	--	89	--
JUL 09...	0920	2910	17.0	147	1160	47	50	--	67	--
AUG 06...	0925	774	20.5	47	98	--	--	--	--	--
AUG 10...	0705	1220	19.0	785	2590	72	80	--	93	--

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. FALL DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70334)
OCT 12...	--	--	--	--	--	59	86	98	100
NOV 07...	6	19	53	81	100	--	--	--	--
DEC 28...	--	--	--	--	--	45	78	99	100
JAN 29...	--	--	--	--	--	30	52	84	100
FEB 26...	14	20	36	95	100	--	--	--	--
MAR 26...	--	--	--	--	--	62	88	99	100
APR 16...	--	--	--	--	--	75	91	99	100
MAY 07...	88	98	100	--	--	--	--	--	--
JUN 04...	50	81	99	99	100	--	--	--	--
JUL 08...	98	99	100	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	96	100	--	--
AUG 06...	--	--	--	--	--	98	100	--	--
AUG 10...	100	--	--	--	--	--	--	--	--

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), (ONCE-DAILY MEASUREMENT),
WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	347	303	330	407	327	346	338	250	193	206	268	316
2	372	289	334	345	322	327	350	248	187	205	264	316
3	247	286	339	358	322	327	336	243	185	207	266	316
4	247	286	343	375	325	325	345	247	188	208	266	301
5	266	290	348	365	311	319	338	245	185	208	275	293
6	272	288	333	362	314	322	329	257	181	206	275	308
7	264	291	333	366	316	319	343	234	176	207	284	306
8	266	300	342	352	316	310	347	230	171	494	278	303
9	264	296	344	358	324	318	333	220	174	232	309	292
10	263	288	345	357	340	316	341	219	176	234	430	302
11	261	286	335	353	336	316	365	221	169	232	283	351
12	300	284	338	353	342	324	360	217	175	249	277	346
13	379	285	332	338	335	325	368	212	175	250	287	327
14	394	287	329	342	342	325	361	219	176	250	291	336
15	398	296	331	336	332	331	353	209	182	258	310	342
16	401	297	376	338	337	328	331	223	187	268	301	343
17	403	306	328	329	343	338	369	227	189	276	308	357
18	398	309	313	328	343	340	364	232	193	290	300	377
19	398	305	314	326	343	327	351	232	193	295	322	371
20	396	316	311	330	333	333	334	229	201	274	336	374
21	395	312	306	336	310	336	317	213	204	266	347	391
22	390	304	309	341	294	340	300	214	205	272	355	389
23	403	308	297	325	301	346	282	212	202	290	358	396
24	409	306	295	335	290	315	260	202	206	287	355	391
25	300	306	294	346	294	338	256	205	210	294	367	394
26	300	312	302	342	306	323	252	196	210	300	377	336
27	309	315	298	330	328	328	248	200	211	297	333	342
28	315	315	356	345	338	340	262	196	212	297	286	346
29	307	315	403	333	341	339	252	190	212	297	303	345
30	316	332	374	333	---	333	244	194	207	270	311	350
31	298	---	379	313	---	338	---	196	---	203	313	---
MEAN	332	300	333	345	324	329	321	220	191	262	311	342
WTR YR 1980	MEAN	301	MAX	494	MIN	169						

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.°C), RECORDER MAXIMUM, MINIMUM, AND MEAN,
WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	302	288	294	324	312	319	336	256	305
2	348	244	275	294	282	288	330	318	324	330	270	309
3	246	236	241	292	278	286	334	324	330	310	258	284
4	248	236	242	290	280	287	338	324	332	304	244	281
5	252	238	247	290	276	285	344	332	339	328	266	292
6	258	244	252	290	280	286	348	318	332	318	278	294
7	262	248	255	290	286	289	338	318	327	296	282	290
8	262	248	256	296	290	292	332	320	326	304	292	298
9	262	258	260	296	288	294	336	324	330	308	302	305
10	266	252	259	298	286	293	340	326	333	316	308	311
11	264	250	257	296	282	291	340	322	331	324	314	319
12	---	240	261	294	278	286	334	322	329	328	318	324
13	---	---	---	288	278	284	332	316	323	330	322	327
14	---	---	---	288	276	284	324	312	319	332	326	329
15	---	---	---	294	284	290	324	302	314	330	324	327
16	---	---	---	298	284	292	318	300	310	328	316	322
17	---	---	---	304	290	298	316	300	309	322	314	320
18	---	---	---	308	302	304	314	292	304	320	316	318
19	---	---	---	310	300	306	308	294	302	320	314	317
20	---	---	---	314	308	311	308	292	302	322	312	317
21	---	---	---	312	304	310	306	290	300	320	312	317
22	---	---	---	310	302	306	304	296	300	320	310	316
23	---	---	---	310	306	307	300	284	291	320	310	316
24	---	---	---	308	298	303	292	278	287	318	310	315
25	390	302	346	308	296	302	290	276	285	320	308	317
26	304	284	294	310	302	307	292	286	289	320	314	318
27	300	286	293	310	304	308	290	284	287	320	314	318
28	304	294	299	314	304	309	292	280	287	322	318	320
29	304	294	300	314	304	309	294	280	289	322	318	320
30	306	298	302	320	308	314	296	274	289	322	316	320
31	306	296	301	---	---	---	316	246	286	318	312	316
MONTH	390	236	274	320	276	297	348	246	310	336	244	312

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	320	306	312	306	302	305	332	322	328	244	236	239
2	310	298	305	308	298	305	338	330	334	240	228	233
3	308	296	303	310	302	307	338	328	334	236	226	231
4	306	296	302	310	306	308	342	332	339	238	226	231
5	306	296	302	314	302	309	344	338	341	234	222	229
6	308	296	304	314	310	313	344	334	340	234	218	226
7	308	298	305	316	310	314	346	340	344	228	214	222
8	310	302	306	316	306	312	346	338	343	226	212	218
9	310	302	306	314	306	311	348	338	345	210	194	200
10	310	298	305	316	308	313	350	340	346	208	194	202
11	312	298	307	316	312	315	354	344	351	212	190	202
12	314	302	309	316	310	313	356	348	352	208	200	203
13	314	304	311	316	306	311	358	352	355	212	198	206
14	318	314	316	318	308	315	360	348	354	214	200	209
15	316	312	315	320	312	318	358	344	350	214	206	211
16	318	312	315	324	318	322	348	320	331	220	208	214
17	320	316	319	326	318	322	342	324	332	222	214	218
18	322	318	320	328	318	325	354	334	343	226	218	222
19	324	318	321	330	320	327	348	326	336	230	216	222
20	320	310	317	328	320	325	340	318	327	228	210	218
21	310	296	302	332	322	327	320	306	315	220	200	208
22	298	288	293	338	328	332	314	294	305	210	196	203
23	296	284	290	336	330	333	298	280	288	208	192	199
24	294	280	287	334	324	331	284	262	275	204	190	196
25	290	280	287	330	328	329	266	254	259	202	186	192
26	294	280	288	330	322	326	262	250	256	196	182	189
27	296	284	292	328	324	327	256	248	253	198	186	191
28	300	288	296	328	326	327	258	246	251	194	184	189
29	304	292	300	330	322	328	258	246	253	192	182	186
30	---	---	---	332	324	329	256	228	244	194	182	187
31	---	---	---	332	330	331	---	---	---	194	182	188
MONTH	324	280	305	338	298	320	360	228	317	244	182	209
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	192	180	185	198	196	197	288	274	281	330	316	324
2	184	174	180	196	196	196	286	272	279	332	318	325
3	188	174	181	198	194	195	286	274	281	334	324	328
4	188	170	181	194	194	194	286	274	281			

RIO GRANDE BASIN
08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued
WATER-QUALITY RECORDS

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980												
DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.0	11.0	4.0	.5	4.5	5.0	9.0	9.0	12.0	17.0	19.0	16.5
2	14.0	8.0	4.0	2.5	2.5	6.0	9.0	8.0	11.0	16.0	20.0	16.5
3	14.0	7.0	5.5	2.0	7.0	8.0	11.5	9.5	11.5	16.0	18.5	17.0
4	13.0	7.5	6.0	.5	7.0	5.5	12.5	9.5	12.0	16.0	20.0	17.0
5	13.0	10.0	6.0	3.5	7.5	10.0	10.5	10.0	13.0	16.0	19.5	18.0
6	13.0	9.5	5.0	1.0	7.0	9.5	10.5	10.0	13.5	17.0	19.0	20.5
7	12.5	10.5	6.0	3.5	5.5	6.5	9.0	10.5	13.5	16.5	20.0	18.0
8	12.0	10.0	5.5	6.0	4.5	6.0	6.5	10.0	14.0	15.0	20.0	17.5
9	13.0	8.0	4.0	5.0	2.0	5.0	7.5	11.0	15.0	17.0	20.0	19.0
10	10.0	8.0	5.0	5.0	4.5	9.0	8.0	11.0	15.0	19.0	19.0	17.0
11	12.0	7.0	5.5	4.0	5.5	7.0	8.5	10.5	15.5	19.0	20.5	17.0
12	12.5	9.5	6.0	3.5	6.0	6.5	8.5	9.0	14.5	20.0	19.5	17.5
13	13.0	9.0	5.0	4.0	7.0	10.5	7.5	9.5	14.0	20.0	19.5	17.0
14	12.5	9.0	3.5	7.5	8.0	11.5	7.0	10.0	14.0	19.5	20.0	17.5
15	12.0	9.5	3.5	8.0	6.0	9.5	8.5	10.0	13.5	20.0	20.5	17.5
16	12.0	9.0	2.5	7.0	6.5	7.5	10.0	9.0	13.0	19.5	19.0	17.5
17	12.0	8.5	4.5	6.5	6.5	10.5	9.0	10.5	15.0	21.0	18.0	16.0
18	12.0	8.5	4.5	3.5	8.0	10.5	9.5	10.5	15.0	21.0	19.0	16.5
19	12.0	6.0	4.5	4.0	6.5	11.0	9.5	11.5	15.5	21.0	19.0	16.5
20	13.0	6.0	4.0	4.0	7.0	12.0	10.0	12.0	14.0	19.0	18.5	16.0
21	12.0	6.0	4.5	6.0	5.0	11.5	10.0	12.5	14.5	19.0	17.0	16.0
22	13.5	5.0	4.0	5.0	5.5	7.5	9.0	14.0	14.5	18.0	19.0	15.0
23	12.0	4.5	3.0	4.5	5.5	10.0	12.0	13.0	14.5	18.0	19.5	14.0
24	14.5	4.5	2.5	4.5	4.5	9.5	8.0	13.5	16.0	18.5	20.0	15.0
25	15.0	5.5	.0	5.0	8.0	6.0	7.0	10.5	16.0	19.0	20.0	14.0
26	11.0	5.5	3.5	4.0	9.0	10.0	7.0	11.0	16.5	24.0	19.5	15.0
27	13.0	6.0	3.0	3.0	10.0	8.5	8.5	11.0	16.5	20.0	18.0	15.0
28	11.0	5.0	5.0	6.0	11.0	6.5	9.0	11.0	16.0	20.0	17.5	15.5
29	11.5	4.5	2.0	5.5	10.0	9.0	9.5	11.5	16.0	19.0	17.5	15.0
30	10.5	4.0	1.0	7.0	---	11.0	9.0	12.0	17.0	20.0	17.0	15.0
31	11.0	---	2.0	7.0	---	8.0	---	12.0	---	20.0	17.0	---
MEAN	12.5	7.5	4.0	4.5	6.5	8.5	9.0	10.5	14.5	18.5	19.0	16.5
WTR YR 1980		MEAN	11.0	MAX	24.0	MIN		.0				

TEMPERATURE, WATER (DEG. C), RECORDER MAXIMUM, AND MEAN, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1	6.0	2.5	4.5	7.5	5.0	6.0	8.5	2.5	6.0	11.5	9.5	10.5
2	6.0	2.5	4.5	8.0	4.0	6.0	9.5	5.5	7.5	13.0	8.5	11.0
3	6.5	3.0	4.5	8.0	5.0	6.5	11.0	4.5	8.0	13.5	10.0	12.0
4	7.0	3.0	5.0	7.0	5.0	6.0	12.0	6.5	9.5	14.0	10.0	12.5
5	7.5	3.5	5.5	9.0	4.5	7.0	12.0	7.5	10.0	14.0	10.5	12.5
6	6.5	3.0	5.0	9.5	6.0	7.5	13.5	8.0	11.0	13.5	10.5	12.0
7	6.5	4.5	5.5	9.5	6.0	7.5	12.5	8.5	10.5	13.0	10.5	12.0
8	5.5	3.0	4.0	9.0	5.0	7.0	11.5	6.0	9.0	12.5	10.5	11.5
9	5.5	1.5	3.5	9.5	4.5	7.0	12.0	7.5	10.0	12.5	10.5	11.5
10	5.5	1.0	3.0	8.5	4.5	7.0	12.0	8.5	10.5	13.5	10.5	12.0
11	5.5	1.0	3.5	8.5	6.5	7.0	10.0	7.0	8.5	12.0	10.5	11.0
12	6.0	1.5	4.0	9.5	6.0	7.5	9.5	5.5	7.5	12.5	8.5	10.5
13	6.5	2.0	4.5	9.5	4.0	7.0	11.0	6.5	8.5	12.5	9.0	11.0
14	7.5	4.5	6.0	11.0	5.0	8.0	12.0	7.0	9.5	11.5	9.5	10.5
15	9.5	5.5	7.0	11.0	6.0	8.5	13.0	8.5	11.0	11.0	9.5	10.0
16	9.0	6.0	7.5	9.5	6.5	7.5	11.5	9.5	10.0	12.0	9.0	10.0
17	8.0	6.0	7.0	9.5	4.5	7.0	13.0	8.5	11.0	13.5	10.0	12.0
18	9.5	6.0	7.5	9.5	4.5	7.5	13.0	8.5	11.0	13.5	10.0	12.0
19	9.0	6.0	7.5	10.5	5.5	8.0	13.0	9.0	11.5	15.0	11.0	13.0
20	8.5	6.0	7.0	11.5	5.0	8.5	13.0	9.5	11.5	15.0	11.5	13.5
21	8.0	5.0	6.5	11.0	6.0	8.5	12.0	9.5	11.0	16.0	12.0	14.0
22	8.5	5.0	6.5	10.5	7.5	8.5	13.0	9.5	11.5	15.5	13.0	14.5
23	7.5	3.5	6.0	10.0	6.0	7.5	12.0	10.0	11.0	15.5	12.5	14.0
24	8.5	4.0	6.0	9.0	5.0	7.0	11.0	6.0	8.0	14.5	12.5	13.5
25	7.0	3.5	5.5	9.5	5.5	7.5	10.5	6.0	8.0	13.5	10.5	12.0
26	7.5	3.5	5.5	9.5	5.5	8.0	11.0	7.5	9.5	13.0	10.5	12.0
27	9.0	4.0	6.5	8.5	5.5	7.0	11.5	8.5	10.0	13.5	10.5	12.0
28	9.5	5.5	7.5	6.5	5.0	5.5	13.0	9.0	11.0	14.5	11.0	12.5
29	9.5	5.5	7.5	9.5	4.0	6.5	12.0	9.5	11.0	15.0	11.5	13.5
30	---	---	---	11.0	6.0	8.5	13.0	9.5	11.0	15.0	12.0	13.5
31	---	---	---	8.5	4.0	7.0	---	---	---	15.5	12.0	13.5
MONTH	9.5	1.0	5.5	11.5	4.0	7.5	13.5	2.5	10.0	16.0	8.5	12.0
DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	15.0	11.5	13.0	19.0	16.0	17.5	22.5	19.0	21.0	20.5	16.0	18.5
2	14.5	11.0	13.0	19.5	15.5	17.5	21.5	19.5	20.5	20.0	16.5	18.5
3	15.0	11.5	13.5	19.5	15.5	18.0	23.0	18.5	21.0	21.0	17.0	19.0

RIO GRANDE BASIN
08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued
WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	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)
1	69	63	1040	4720	1280	5290	192	317	225	491	371	1200
2	825	3160	1090	4710	1560	6490	219	389	143	307	250	817
3	959	3880	1280	5530	1250	5330	980	1440	132	282	462	1500
4	1060	4240	963	4130	908	3820	374	537	174	373	843	2730
5	1290	3940	1550	6780	797	3380	995	1520	155	331	218	706
6	642	1770	1180	5540	1330	5640	290	460	152	321	226	732
7	1090	2970	1370	6400	950	4000	1410	2330	163	356	191	588
8	401	1040	929	3960	635	2740	200	333	173	387	185	464
9	405	1030	898	3760	1000	4350	201	337	159	348	173	398
10	393	1010	1370	6990	815	3590	1590	2710	135	258	181	441
11	437	1120	1440	7430	674	3000	209	365	115	238	183	444
12	215	253	1310	6580	555	2500	130	234	123	265	155	359
13	700	582	1290	6550	631	2830	129	234	119	252	345	868
14	26	22	1400	6990	985	4390	165	309	100	205	185	407
15	26	21	1330	5780	480	2100	244	470	133	265	170	365
16	30	24	1340	5720	412	1810	216	434	788	1780	131	286
17	35	27	1380	5550	408	1800	230	443	178	409	169	382
18	75	62	1720	6970	405	1780	196	378	135	309	149	339
19	117	104	1360	5620	386	1700	140	282	117	273	112	257
20	75	67	1500	6280	383	1660	154	309	155	386	100	232
21	108	101	1380	5700	381	1680	145	276	189	473	105	253
22	111	114	1920	7570	335	1490	196	392	186	457	361	951
23	119	121	1160	4450	510	2260	151	318	395	953	241	670
24	75	77	1280	5320	430	1880	101	186	136	309	821	2280
25	629	2130	1290	5400	321	1420	1230	2160	155	359	225	632
26	672	2400	1140	4770	293	1290	136	254	636	1890	214	618
27	737	2690	986	4150	284	1240	115	220	300	931	266	883
28	600	2250	1250	5200	189	348	105	204	290	916	212	744
29	599	2260	1020	4210	124	184	130	251	280	900	183	578
30	767	2980	937	3850	128	175	190	392	---	---	165	512
31	802	3200	---	---	137	177	263	572	---	---	161	496
TOTAL	---	43708	---	166610	---	80344	---	19056	---	15024	---	22132
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	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)
1	140	401	1020	13300	839	15000	131	1440	218	683	335	866
2	170	482	971	13100	770	14000	300	3220	139	428	315	812
3	302	789	710	9470	576	10300	187	1960	176	570	455	1210
4	1120	3010	810	11300	599	10400	338	3540	153	483	397	1130
5	138	371	920	13100	502	8740	208	2180	137	351	265	661
6	380	1110	1580	25900	510	9170	171	1760	48	99	238	467
7	200	637	1730	29900	617	11400	152	1530	300	603	240	438
8	254	892	1820	34200	500	9360	5980	75500	395	1300	208	383
9	223	819	1930	36400	546	10500	290	2210	1390	3230	419	980
10	1500	7050	1600	30500	658	13100	260	1730	810	2880	314	466
11	750	3910	1690	33300	530	10600	349	2200	523	1340	140	167
12	1590	9700	1340	25300	643	13000	159	721	400	1010	249	353
13	550	3250	1050	18000	536	10700	145	576	1190	9800	180	250
14	469	2370	997	16600	598	11600	105	380	2420	6970	257	295
15	553	2390	977	16100	478	8560	87	289	1310	2410	97	113
16	120	480	840	13600	399	6570	75	211	593	1060	85	103
17	1650	11300	910	14700	402	6280	51	121	470	761	54	56
18	1470	10900	680	10800	333	5000	55	117	226	279	45	41
19	1210	9770	630	9810	305	4460	122	277	116	120	49	41
20	1280	11000	620	9960	228	3240	264	841	91	86	41	32
21	1350	12500	720	12300	210	2930	170	523	71	63	38	27
22	1660	17300	761	14300	179	2500	440	1390	68	58	34	23
23	2340	26900	765	15300	173	2330	798	2630	46	37	37	26
24	2540	31500	1240	26300	195	2490	203	619	46	34	33	24
25	1440	16700	1020	22000	176	2160	123	362	91	66	176	210
26	1180	13800	883	18500	169	2020	101	238	26	18	194	270
27	835	9560	950	18900	153	1810	95	215	2450	8700	106	137
28	890	10600	672	12500	140	1640	102	245	1350	4880	92	116
29	958	11600	720	11300	132	1530	120	280	525	1390	90	113
30	1030	12800	920	13000	134	1510	140	374	550	1470	82	101
31	---	---	862	14300	---	---	182	521	431	1130	---	---
TOTAL	---	243891	---	564040	---	212900	---	108200	---	52309	---	9911
TOTAL LOAD FOR YEAR:		1538125	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). Prior to Oct. 3, 1979, at site 1.0 mi (1.6 km) upstream.

DRAINAGE AREA.--18.1 mi² (46.9 km²).

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.--9 years (water years 1964-69, 1978-80), 1.52 ft³/s (0.043 m³/s), 1,100 acre-ft/yr (1.36 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,030 ft³/s (85.8 m³/s) July 21, 1978, gage height, 6.34 ft (1.932 m), site and datum then in use, from rating curve extended above 20 ft³/s (0.57 m³/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 ft³/s (0.54 m³/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 ft³/s (0.22 m³/s) on basis of theoretical rating.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 4.0 ft³/s (0.11 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 15	1730	6.0 0.17	Unknown -	Aug. 6	1830	5.8 0.16	2.07 0.631
May 15	1700	5.4 .15	2.06 0.628	Aug. 27	1600	*b12 .34	2.31 .704

a About.

b From rating curve extended above 4.8 ft³/s (0.14 m³/s).

Minimum discharge, 0.03 ft³/s (0.001 m³/s) July 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.32	.80	.80	.80	1.0	1.6	1.3	4.4	1.8	.31	.17	.11
2	.32	.83	1.0	.75	.98	1.7	1.5	4.5	1.6	.31	.25	.10
3	.32	.87	1.1	.65	.99	1.8	1.4	4.5	1.3	.28	.50	.10
4	.36	.87	.97	.65	.94	1.8	1.4	4.4	1.2	.25	.31	.08
5	.39	.87	.94	.80	.93	1.7	1.4	4.5	1.0	.21	.31	.11
6	.36	.87	.93	.90	.94	1.7	1.5	4.6	1.1	.17	.97	.22
7	.36	.92	.90	.95	1.0	1.7	1.6	4.6	1.2	.21	1.0	.37
8	.36	1.1	.87	1.1	.94	1.7	1.6	4.6	1.2	.25	.81	.41
9	.38	.99	.87	1.0	.73	1.6	1.7	4.6	1.2	.34	.94	.96
10	.45	.94	.91	1.0	.71	1.6	1.7	4.6	1.1	.23	.38	1.1
11	.42	.94	.94	1.0	.75	1.6	1.8	4.6	1.0	.15	.25	.77
12	.40	.94	.94	1.0	.75	1.6	2.1	4.6	.94	.11	.23	.55
13	.43	.94	.81	1.0	.87	1.5	2.0	4.2	.87	.15	.21	.40
14	.42	.90	.69	1.1	1.5	1.5	1.9	4.1	.81	.19	.34	.35
15	.42	.87	.81	1.1	1.8	1.5	1.9	4.4	.75	.15	.38	.47
16	.47	.87	.87	1.1	2.0	1.5	2.1	4.1	.81	.10	.23	.46
17	.48	.87	.75	1.0	1.6	1.5	2.2	4.0	.69	.08	.19	.29
18	.54	.91	.87	1.1	1.8	1.4	2.4	3.8	.64	.08	.19	.25
19	.53	1.0	.87	1.2	2.1	1.4	2.6	4.0	.64	.13	.17	.23
20	.51	1.1	.94	1.2	2.5	1.4	2.8	4.0	.59	.19	.15	.22
21	.69	.89	1.0	1.0	2.3	1.4	3.0	3.8	.59	.17	.11	.21
22	.73	.63	1.0	.91	2.0	1.4	3.2	3.6	.54	.15	.11	.20
23	.69	.79	.87	.73	1.7	1.5	3.3	3.5	.54	.21	.15	.23
24	.68	1.0	.75	.81	1.6	1.5	3.3	3.2	.46	.38	.17	.22
25	.64	1.1	1.0	.94	1.5	1.6	3.5	2.9	.34	.23	.25	.21
26	.64	1.0	1.0	.94	1.5	1.6	3.6	2.7	.23	.17	.25	.26
27	.64	.97	1.1	.94	1.5	1.7	3.8	2.5	.31	.11	1.4	.32
28	.65	.65	.98	1.0	1.5	1.6	3.9	2.4	.34	.13	.50	.32
29	.67	.65	.90	1.1	1.6	1.5	4.1	2.2	.34	.19	.25	.39
30	.79	.75	.90	1.2	---	1.5	4.2	2.1	.34	.21	.19	.27
31	.79	---	.70	1.1	---	1.4	---	1.9	---	.28	.15	---
TOTAL	15.85	26.83	27.98	30.07	42.03	48.5	72.8	117.9	24.47	6.12	11.51	10.18
MEAN	.51	.89	.90	.97	1.45	1.56	2.43	3.80	.82	.20	.37	.34
MAX	.79	1.1	1.1	1.2	3.8	1.8	4.2	4.6	1.8	.38	1.4	1.1
MIN	.32	.63	.69	.65	.71	1.4	1.3	1.9	.23	.08	.11	.08
AC-FT	31	53	55	60	83	96	144	234	49	12	23	20

CAL YR 1979 TOTAL 1188.81 MEAN 3.26 MAX 38 MIN .28 AC-FT 2360
WTR YR 1980 TOTAL 434.24 MEAN 1.19 MAX 4.6 MIN .08 AC-FT 861

08313350 RITO DE LOS FRIJOLES IN BANDELIER NATIONAL MONUMENT, NM -- Continued

WATER-QUALITY RECORDS

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

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
NOV						
21...	1400	.81	130	3.0	4	.01
21...	1435	.81	130	3.0	2	.00
DEC						
07...	1330	.94	122	3.0	5	.01
07...	1400	.94	126	3.0	4	.01
11...	1500	.94	125	4.0	2	.01
JAN						
30...	1130	1.2	113	3.0	8	.03
30...	1430	1.2	114	4.0	4	.01
FEB						
13...	1105	1.0	120	1.5	3	.01
MAR						
04...	1130	1.8	111	4.5	11	.05
21...	1120	1.4	123	6.5	0	.00
MAY						
01...	1345	4.4	110	7.0	11	.13
JUN						
26...	1430	.23	130	21.0	13	.01
30...	0820	.42	130	11.0	3	.00
JUL						
11...	0830	.23	133	--	5	.00
17...	0830	.13	133	15.0	4	.00
AUG						
29...	1415	.25	126	18.0	6	.00
SEP						
05...	1425	.15	154	18.0	2	.00
12...	1130	.50	139	15.0	3	.00
26...	1100	.25	134	12.0	1	.00

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, on outlet tower at McClure Dam on Santa Fe River, 2.1 mi (3.4 km) upstream from Nichols Reservoir, 5.8 mi (9.3 km) east of Santa Fe, and at mile 37.1 (59.7 km).

DRAINAGE AREA.--17.4 mi² (45.1 km²).

PERIOD OF RECORD.--September 1929, July to October 1930, April 1931 to June 1946, September 1947 to current year.

Prior to October 1947, published in WSP 1312. Prior to October 1965, monthend contents only.

GAGE.--Water-stage recorder. Altitude of gage is 7,788 ft (2,374 m), from topographic map. Prior to Oct. 1, 1947, nonrecording gages at same site and various datums all referred to the Public Service Co. of New Mexico assumed datum, 165.9 ft (50.57 m) lower.

REMARKS.--Reservoir is formed by earthfill dam, completed in 1926, capacity, 561 acre-ft (692,000 m³), raised 3 ft (0.9 m) in 1935, capacity, 650 acre-ft (801,000 m³), and raised 36.5 ft (11.13 m) more in 1947, capacity, 2,615 acre-ft (3.22 hm³) 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 hm³). Radial gates were removed during 1972, capacity, 2,615 acre-ft (3.22 hm³). No dead storage. Water is for municipal use of city of Santa Fe.

COOPERATION.--Supplementary stage readings and capacity table furnished by Public Service Co. of New Mexico.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 3,140 acre-ft (3.87 hm³) 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, 2,650 acre-ft (3.27 hm³) May 6-8, June 8-13; maximum gage height, 97.16 ft (29.61 m) June 10; minimum contents, 1,270 acre-ft (1.57 hm³) Oct. 29 to Nov. 7, gage height, 74.7 ft (22.77 m).

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Public Service Co. of New Mexico in 1947)

70	1,050	90	2,160
75	1,280	95	2,580
80	1,550	100	2,860
85	1,840		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1510	1270	1300	1330	1360	1480	1710	2480	2640	2620	2140	1680
2	1500	1270	1300	1330	1360	1490	1720	2520	2640	2610	2110	1670
3	1490	1270	1300	1330	1360	1500	1730	2570	2640	2610	2100	1670
4	1480	1270	1300	1330	1360	1500	1750	2630	2640	2600	2070	1660
5	1480	1270	1300	1330	1360	1510	1760	2640	2640	2600	2050	1650
6	1480	1270	1300	1330	1370	1520	1780	2650	2640	2590	2030	1650
7	1480	1270	1300	1330	1370	1530	1810	2650	2640	2580	2010	1650
8	1480	1280	1300	1330	1370	1530	1830	2650	2650	2570	1990	1640
9	1480	1280	1310	1330	1370	1540	1850	2640	2650	2570	1980	1640
10	1470	1280	1310	1330	1370	1540	1850	2640	2650	2560	1960	1660
11	1460	1280	1310	1330	1380	1550	1910	2640	2650	2540	1940	1670
12	1450	1280	1310	1330	1380	1550	1930	2630	2650	2520	1920	1670
13	1450	1280	1310	1330	1390	1560	1950	2630	2650	2510	1900	1670
14	1440	1280	1320	1330	1390	1570	1960	2630	2640	2490	1890	1670
15	1420	1280	1320	1340	1390	1570	1970	2630	2640	2470	1900	1670
16	1410	1280	1320	1340	1390	1580	1970	2630	2640	2450	1890	1670
17	1400	1280	1320	1340	1400	1580	1990	2630	2640	2430	1870	1670
18	1390	1290	1320	1340	1400	1590	2010	2630	2640	2410	1860	1670
19	1380	1300	1320	1340	1410	1600	2050	2640	2640	2390	1840	1660
20	1370	1300	1320	1340	1420	1610	2090	2640	2640	2370	1820	1660
21	1360	1300	1320	1340	1420	1610	2140	2640	2640	2360	1800	1660
22	1350	1300	1320	1340	1430	1620	2180	2640	2630	2340	1780	1650
23	1340	1300	1320	1340	1430	1630	2220	2640	2630	2320	1760	1650
24	1320	1300	1320	1350	1440	1640	2260	2640	2630	2300	1750	1640
25	1320	1300	1320	1350	1440	1650	2290	2640	2630	2280	1740	1640
26	1300	1300	1320	1350	1450	1660	2310	2640	2630	2260	1730	1630
27	1300	1300	1320	1350	1450	1670	2330	2640	2630	2240	1720	1620
28	1280	1300	1320	1350	1460	1680	2360	2640	2620	2220	1710	1610
29	1270	1300	1320	1350	1470	1680	2400	2640	2620	2200	1710	1610
30	1270	1300	1320	1360	---	1690	2450	2640	2620	2180	1690	1600
31	1270	---	1320	1360	---	1700	---	2640	---	2150	1690	---
MAX	1510	1300	1320	1360	1470	1700	2450	2650	2650	2620	2140	1680
MIN	1270	1270	1300	1330	1360	1480	1710	2480	2620	2150	1690	1600
(†)	74.7	75.3	75.8	76.45	78.52	82.56	94.23	96.98	96.66	89.90	82.36	80.83
(‡)	-250	+30	+20	+40	+110	+230	+750	+190	-20	-470	-460	-90

CAL. YR 1979 MAX 2690 MIN 1140 † -20

WTR YR 1980 MAX 2650 MIN 1270 † +80

† Gage height, in feet, at end of month.

‡ 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 mi² (47.1 km²).

PERIOD OF RECORD.--June 1910, January 1913 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1953, published as Santa Fe Creek near Santa Fe.

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.--67 years, 7.94 ft³/s (0.225 m³/s), 5,750 acre-ft/yr (7.09 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,500 ft³/s (42.5 m³/s) Aug. 14, 1921, gage height, 5.17 ft (1.576 m), site and datum then in use, from rating curve extended above 150 ft³/s (4.2 m³/s); minimum, 0.08 ft³/s (0.002 m³/s) July 31, Aug. 1, 1951.

EXTREMES OUTSIDE PERIOD OF RECORD.--Peaks which probably exceeded 1,000 ft³/s (28 m³/s) occurred Aug. 19, 1872, and Sept. 29 or 30, 1904. Without regulation the flood of Sept. 23, 1929, might have exceeded 1,500 ft³/s (42 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 84 ft³/s (2.38 m³/s) June 10, gage height, 2.93 ft (0.893 m); minimum, 0.81 ft³/s (0.023 m³/s) Oct. 1, 4-9, Aug. 29, Sept. 22, 24, 25, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	1.5	.89	.98	1.0	1.1	1.2	7.3	39	9.5	12	4.4
2	6.5	1.5	.89	.98	1.0	1.1	1.2	7.3	40	9.3	12	4.4
3	4.1	1.5	.98	.98	1.0	1.1	1.3	7.1	39	9.3	12	4.4
4	2.1	1.5	.98	.90	1.0	1.1	1.3	7.4	40	9.3	12	4.4
5	.81	1.5	.98	.90	1.0	1.1	1.4	31	42	9.3	12	4.5
6	.91	1.2	.98	.90	1.0	1.1	1.5	48	44	9.2	12	4.4
7	.91	.89	.98	.90	1.0	1.1	1.5	47	45	9.3	11	4.4
8	.81	.93	.98	.90	1.0	1.0	1.4	52	45	9.2	12	4.4
9	3.0	.89	.98	.90	1.0	.98	1.3	45	60	9.1	11	4.4
10	5.7	.89	.98	.90	1.0	.98	1.3	38	71	9.1	11	4.8
11	5.7	.89	.98	.90	1.0	.98	1.3	38	63	11	11	4.8
12	5.7	.89	.98	.90	1.0	.98	1.2	33	55	13	11	4.8
13	5.7	.89	.98	.90	1.2	.98	1.1	28	51	13	11	4.8
14	5.7	.89	.98	.90	1.1	.98	3.7	25	46	13	12	4.8
15	5.7	.89	.98	.90	1.2	.98	7.7	26	41	13	12	4.8
16	5.7	.89	.98	.89	1.2	.98	7.8	23	37	13	11	4.8
17	5.7	.89	.98	.89	1.2	.98	7.6	21	34	13	11	4.8
18	6.2	.89	.98	.89	1.2	.98	7.6	20	32	13	11	4.8
19	6.9	.90	.98	.89	1.3	.98	7.7	23	30	13	11	4.8
20	6.9	.89	.98	.89	1.3	.98	7.7	28	27	13	11	4.8
21	6.9	.89	.98	.89	1.3	.98	7.4	34	24	13	11	4.8
22	6.9	.89	.98	.89	1.2	.98	7.4	39	21	12	11	5.0
23	6.1	.89	.89	.90	1.2	1.1	7.5	46	19	12	11	5.5
24	6.5	.89	.89	.90	1.2	1.0	7.5	49	17	12	11	4.5
25	7.0	.89	.89	.90	1.1	1.1	7.2	51	16	12	8.0	4.9
26	7.6	.89	.89	1.0	1.2	1.1	7.3	43	14	12	5.5	5.8
27	7.1	.89	.89	1.0	1.1	1.1	7.3	36	13	12	5.7	6.0
28	7.1	.89	.89	1.0	1.1	1.1	7.3	34	12	12	5.7	6.0
29	4.5	.89	.89	1.0	1.1	1.1	7.1	35	11	12	4.9	5.9
30	1.5	.89	.89	1.0	---	1.1	7.2	36	9.8	12	4.4	5.2
31	1.5	---	.98	1.0	---	1.1	---	38	---	12	4.4	---
TOTAL	155.74	30.11	29.48	28.67	32.2	32.22	140.0	996.1	1037.8	353.6	311.6	146.1
MEAN	5.02	1.00	.95	.92	1.11	1.04	4.67	32.1	34.6	11.4	10.1	4.87
MAX	8.3	1.5	.98	1.0	1.3	1.1	7.8	52	71	13	12	6.0
MIN	.81	.89	.89	.89	1.0	.98	1.1	7.1	9.8	9.1	4.4	4.4
AC-FT	309	60	58	57	64	64	278	1980	2060	701	618	290

CAL YR 1979 TOTAL 4985.52 MEAN 13.7 MAX 134 MIN .81 AC-FT 9890

WTR YR 1980 TOTAL 3293.62 MEAN 9.00 MAX 71 MIN .81 AC-FT 6530

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, on outlet tower at Nichols Dam on Santa Fe River, 0.6 mi (1.0 km) east of Twomile Reservoir, 3.3 mi (5.3 km) east of Santa Fe, and at mile 34.4 (55.3 km).

DRAINAGE AREA.--22.8 mi² (59.1 km²).

PERIOD OF RECORD.--March 1943 to September 1965 (monthend contents only), October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 7,313.2 ft (2,229.06 m) 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 m³) between gage heights 121.2 ft (36.94 m), bottom of lower operational gate and 167.0 ft (50.90 m), crest of spillway. Dead storage, 14 acre-ft (17,300 m³). Water is for municipal use of city of Santa Fe.

COOPERATION.--Supplementary stage readings and survey to compute capacity table furnished by Public Service Co. of New Mexico.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 836 acre-ft (1.03 hm³) June 8, 1952, gage height, 171.8 ft (52.36 m); minimum, 16 acre-ft (19,700 m³) Feb. 11 to Mar. 10, 1944, Feb. 1-19, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 708 acre-ft (873,000 m³) June 9, gage height, 167.74 ft (51.127 m); minimum, 191 acre-ft (236,000 m³) Apr. 7, gage height, 144.15 ft (43.937 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	160	491
150	279	170	776

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	452	625	593	499	407	358	269	497	701	642	450	534
2	458	625	590	497	405	356	261	506	702	625	445	517
3	463	625	587	492	403	356	249	514	702	611	452	500
4	463	625	587	490	401	353	233	523	702	600	453	483
5	463	625	585	488	400	352	214	573	701	593	458	476
6	463	625	582	486	398	351	198	644	700	584	458	480
7	463	622	577	484	397	350	196	702	702	575	460	478
8	461	622	569	483	396	346	202	705	703	563	464	476
9	458	622	561	481	394	342	210	703	705	557	466	474
10	465	620	555	479	390	339	218	702	706	546	473	475
11	468	620	550	477	382	337	226	702	706	537	480	472
12	475	617	550	474	375	333	234	701	704	532	485	466
13	482	617	547	468	367	332	241	701	704	527	489	462
14	486	614	542	463	365	331	252	701	702	521	499	456
15	494	612	539	459	364	327	271	701	702	516	510	450
16	502	612	536	456	365	323	293	701	698	507	518	443
17	510	609	531	454	365	320	316	701	699	500	526	437
18	518	609	528	453	366	315	331	700	698	494	535	428
19	528	609	523	450	368	312	332	702	697	488	542	417
20	539	609	520	448	370	307	333	702	695	489	549	407
21	550	606	518	445	370	303	335	701	696	485	554	404
22	561	603	515	442	370	299	350	704	694	486	555	393
23	569	603	512	438	368	296	370	704	692	484	560	386
24	577	603	512	433	366	292	393	704	692	479	563	386
25	587	601	510	430	364	288	413	703	689	477	562	387
26	598	598	510	427	362	285	432	702	686	474	555	393
27	609	598	507	424	361	282	453	701	680	473	552	400
28	617	595	504	421	359	280	466	701	672	467	552	406
29	625	595	504	419	359	277	477	701	666	464	549	410
30	625	593	502	417	---	275	487	701	655	462	544	412
31	625	---	499	412	---	272	---	702	---	455	540	---
MAX	625	625	593	499	407	358	487	705	706	642	563	534
MIN	452	593	499	412	359	272	196	497	655	455	445	386
(†)	165.0	163.8	160.3	156.61	154.16	149.56	159.85	167.53	165.99	158.45	161.83	156.61
(‡)	+176	-32	-94	-87	-53	-87	+215	+215	-47	-200	+85	-128

CAL YR 1979 MAX 725 MIN 208 † +301

WTR YR 1980 MAX 706 MIN 196 † -37

† Gage height, in feet, at end of month.

‡ 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 mi² (598 km²).

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.--Records good except those for November and December, which are fair. Surface and ground-water diversions and returns for municipal supply of city of Santa Fe in upper part of basin. Diversions for irrigation of about 400 acres (1.6 km²) above station. 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.--10 years, 8.76 ft³/s (0.248 m³/s), 6,350 acre-ft/yr (7.83 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft³/s (323 m³/s) July 26, 1971, gage height, 9.58 ft (2.920 m), from rating curve extended above 160 ft³/s (4.5 m³/s) on basis of slope-area measurements at gage heights 5.69 ft (1.734 m) and 9.58 ft (2.920 m); no flow July 16-18, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 258 ft³/s (7.31 m³/s) Sept. 6, gage height, 254 ft (0.774 m), no peak above base of 300 ft³/s (8.5 m³/s); minimum, 1.0 ft³/s (0.028 m³/s) July 6.

DISCHARGE MEASUREMENTS, IN CUBIC FEET PER SECOND, OF DITCH, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Oct. 23	0.24	Mar. 10	0	June 24	0	Aug. 26	0.17
Nov. 19	0	May 9	0	June 30	.44	Sept. 24	0
Dec. 17	0	June 4	1.4	July 28	0		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	5.0	6.0	8.5	9.2	8.2	8.5	8.5	23	2.0	2.9	3.3
2	3.1	5.0	7.0	8.4	8.9	8.2	9.3	9.2	22	2.3	3.2	3.0
3	3.0	5.1	8.0	8.5	8.7	8.7	9.1	8.5	22	2.3	3.0	2.8
4	3.1	5.1	8.5	8.6	9.2	9.1	8.5	7.5	21	2.2	2.9	3.0
5	3.2	5.0	9.0	8.4	10	8.8	8.4	7.3	22	2.1	2.3	3.0
6	3.3	5.2	8.0	8.1	9.8	8.6	8.4	7.3	20	1.9	1.9	5.3
7	3.1	5.9	8.5	8.4	9.8	8.6	7.5	5.8	20	2.1	5.1	23
8	3.2	8.3	8.5	8.4	9.4	8.1	7.2	13	22	2.6	7.2	9.9
9	3.6	6.8	8.5	8.3	8.7	7.5	8.3	25	28	2.6	8.1	13
10	3.8	5.6	8.5	8.5	8.7	8.2	8.2	24	32	2.5	3.6	16
11	3.7	5.2	8.0	8.5	8.7	9.0	8.7	22	32	2.8	3.4	8.2
12	3.7	5.0	8.0	8.3	10	8.6	9.5	22	33	2.6	2.8	6.9
13	3.8	5.1	8.0	8.5	9.3	8.3	8.7	22	30	2.5	2.9	6.0
14	4.3	5.0	7.5	8.5	9.8	8.0	8.2	22	28	2.4	7.5	5.6
15	4.1	5.0	8.0	9.5	12	8.0	7.6	47	25	2.3	10	5.4
16	4.3	5.4	8.0	8.7	12	8.0	8.0	32	23	2.1	3.7	4.8
17	4.0	5.7	9.0	9.0	9.7	7.9	8.0	23	18	2.3	3.4	4.7
18	4.2	5.7	8.8	9.5	9.5	7.4	8.1	22	15	2.2	2.9	5.0
19	4.3	5.9	8.3	9.5	9.2	8.0	8.0	21	12	2.4	2.5	4.4
20	4.1	5.5	8.2	9.0	10	8.3	6.7	20	10	2.1	2.4	4.6
21	5.3	5.0	8.3	8.9	9.6	8.1	7.1	20	8.0	2.3	2.8	4.2
22	5.2	4.5	8.1	8.6	9.0	8.2	7.4	17	6.5	2.4	2.7	3.2
23	4.4	4.5	7.6	8.7	8.6	8.8	6.6	24	5.5	2.6	2.6	2.6
24	4.2	5.0	7.3	8.8	8.3	8.5	7.9	25	4.7	2.5	2.7	3.8
25	4.1	5.5	7.0	8.8	8.1	8.5	9.7	25	3.6	2.5	4.8	2.7
26	4.0	6.5	6.8	8.6	8.2	8.5	7.6	23	3.3	2.0	4.1	2.5
27	4.3	7.0	7.8	8.5	7.9	9.3	7.3	22	3.2	2.1	4.2	2.5
28	4.4	6.5	7.2	8.5	7.6	10	7.4	20	2.2	1.9	3.9	3.2
29	4.4	6.0	7.2	8.8	8.0	9.7	7.1	18	1.6	1.9	3.8	5.4
30	4.6	5.0	7.6	15	---	9.4	7.1	18	2.1	2.2	3.7	2.5
31	5.2	---	8.0	11	---	9.0	---	21	---	2.3	3.3	---
TOTAL	123.3	166.0	245.2	277.3	267.9	263.5	240.1	602.1	498.7	71.0	120.3	170.5
MEAN	3.98	5.53	7.91	8.95	9.24	8.50	8.00	19.4	16.6	2.29	3.88	5.68
MAX	5.3	8.3	9.0	15	12	10	9.7	47	33	2.8	10	23
MIN	3.0	4.5	6.0	8.1	7.6	7.4	6.6	5.8	1.6	1.9	1.9	2.5
AC-FT	245	329	486	550	531	523	476	1190	989	141	239	338
CAL YR 1979	TOTAL	5808.9	MEAN	15.9	MAX	387	MIN	1.2	AC-FT	11520		
WTR YR 1980	TOTAL	3045.9	MEAN	8.32	MAX	47	MIN	1.6	AC-FT	6040		

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 mi² (38,600 km²), approximately, including 2,940 mi² (7,610 km²), in closed basin in San Luis Valley, CO.

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 hm³) 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 hm³) 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 hm³) 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 hm³) 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, 71,880 acre-ft (88.6 hm³) May 27, elevation, 5,339.99 ft (1,627.629 m); minimum, 44,620 acre-ft (55.0 hm³) Oct. 2, elevation, 5,320.11 ft (1,621.570 m).

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Corps of Engineers in 1978)

5,320	44,490
5,330	57,160
5,340	71,900

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45620	46400	46320	46260	46390	46340	46200	54160	64300	46170	46330	45980
2	44790	46420	46330	46470	46260	46290	46410	54510	64080	46030	46360	46100
3	45360	46330	46450	46340	46200	46300	46780	54710	63710	46030	46460	46340
4	45980	46340	46570	46260	46210	46290	47120	55210	63270	45990	46560	46700
5	46110	46210	46580	46330	46240	46290	47300	55990	63180	46100	46450	46840
6	46100	46300	46540	46350	46260	46320	47390	57600	63360	45960	46330	46700
7	46180	46650	46500	46400	46280	46220	47480	58610	63780	45660	46390	46240
8	46150	46580	46470	46360	46400	46040	47540	60020	64340	45550	46410	45970
9	46150	46270	46480	46280	46400	46300	47530	61800	65390	46040	46300	46360
10	46230	46470	46510	46270	46220	46400	47620	63270	66710	45840	46290	46500
11	46540	46220	46480	46340	46260	46330	47670	65180	68130	46180	46110	46290
12	46650	46360	46460	46340	46290	46390	47420	66530	69620	46080	46270	46330
13	46480	46650	46500	46300	46300	46520	47180	66700	70820	45730	46450	46280
14	46350	46620	46510	46230	46330	46480	46990	66380	71460	45760	46900	46170
15	46280	46390	46510	46270	46200	46250	47180	66120	71350	45800	46160	46330
16	46320	46240	46510	46380	46290	46320	47050	65720	70040	46040	46030	46380
17	46260	46060	46470	46390	46360	46350	47630	65240	68200	46360	46160	46220
18	46320	45910	46460	46320	46280	46390	47800	64650	65960	46520	46170	46210
19	46330	45920	46470	46340	46240	46360	48560	63970	63620	46450	46140	46210
20	46270	46080	46460	46300	46410	46290	49780	63600	61160	46450	46100	46220
21	46270	46270	46480	46270	46460	46320	50720	63940	58750	46320	46160	46270
22	46300	46150	46540	46300	46440	46420	52060	64710	56310	46390	46210	46240
23	46340	45960	46590	46400	46320	46360	53550	65930	53450	46530	46220	46290
24	46290	46030	46630	46280	46230	46330	55320	67700	51340	46330	46170	46270
25	46520	46120	46640	46160	46350	46360	55760	69710	49400	46330	46180	46400
26	46680	46230	46720	46240	46480	46340	55880	71220	48270	46180	46200	46500
27	46450	46280	47130	46280	46410	46440	55840	71880	47940	46200	46570	46390
28	46290	46220	46380	46280	46320	47820	55480	71660	47820	46540	46690	46390
29	46260	46170	46180	46360	46390	47730	54670	69690	47530	46540	46470	46240
30	46300	46220	46240	46420	---	46560	54180	66320	47040	46500	46360	46150
31	46160	---	46170	46410	---	46350	---	64720	---	46350	46180	---
MAX	46680	46650	47130	46470	46480	47820	55880	71880	71460	46540	46900	46840
MIN	44790	45910	46170	46160	46200	46040	46200	54160	47040	45550	46030	45970
(†)	5321.40	5321.45	5321.41	5321.61	5321.59	5321.56	5327.78	5335.33	5322.13	5321.56	5321.42	5321.39
(‡)	-720	+60	-50	+240	-20	-40	+7830	+10540	-17680	-690	-170	-30

CAL YR 1979 MAX 184400 MIN 44790 †a-10780

WTR YR 1980 MAX 71880 MIN 44790 ‡ -730

† 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, 1979.

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 mi² (38,590 km²), approximately, including 2,940 mi² (7,610 km²) 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 km²) in Colorado and about 81,000 acres (330 km²) in New Mexico. Cochiti eastside main canal, on left bank, and Sili main canal, on right bank, head at Cochiti Dam and bypass gage for irrigation of about 6,000 acres (24 km²) below station; see tabulation below for monthly and yearly diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 10,300 ft³/s (292 m³/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 ft³/s (74 m³/s); minimum, 0.51 ft³/s (0.014 m³/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 ft³/s (663 m³/s) at a nearby site upstream from mouth of Santa Fe River. The flood of May 23, 1920, probably exceeded 23,400 ft³/s (663 m³/s), and is likely the highest since 1905.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,880 ft³/s (195 m³/s) May 28, gage height, 6.03 ft (1.838 m); minimum, 44 ft³/s (1.25 m³/s) Sept. 23-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	711	1300	1420	567	860	1150	898	4660	6580	3950	903	763
2	910	1430	1460	601	870	1130	698	4680	6540	3700	897	646
3	922	1420	1470	653	850	1140	612	4680	6530	3560	901	602
4	922	1380	1460	610	830	1050	610	4670	6380	3560	888	631
5	860	1460	1480	567	810	1030	680	4690	6160	3570	826	634
6	744	1460	1500	567	820	1030	777	5140	6160	3580	630	636
7	706	1430	1500	601	870	1030	860	5740	6170	3500	519	639
8	734	1480	1500	644	810	870	989	5980	6200	3270	560	572
9	665	1550	1500	681	890	635	1100	6020	6140	2760	732	459
10	650	1530	1520	628	860	626	1320	6060	6110	2530	874	438
11	584	1880	1540	644	772	772	1720	6100	6280	1980	781	336
12	362	1660	1540	671	801	764	1980	6170	6350	1650	647	271
13	231	1630	1540	698	810	636	2010	6360	6380	1450	648	370
14	210	1730	1540	698	860	732	1700	6250	6400	1160	768	279
15	165	1640	1540	689	840	713	1350	6200	6400	1070	765	185
16	136	1540	1540	689	810	618	1300	6160	6380	854	490	259
17	139	1500	1540	735	890	637	1850	6160	6360	646	332	262
18	109	1460	1540	734	942	656	2380	6140	6300	607	275	166
19	149	1400	1570	734	880	691	2380	6120	6230	687	224	130
20	180	1380	1540	763	890	724	2410	6090	6130	951	150	99
21	180	1390	1540	734	931	685	2780	6100	6040	1040	96	72
22	180	1400	1520	698	964	724	3000	6450	5970	961	96	76
23	212	1410	1520	744	997	858	3310	6740	5880	990	96	49
24	231	1410	1520	792	910	835	3530	6650	5670	1030	88	81
25	460	1410	1520	744	840	809	3890	6720	5110	932	66	106
26	1030	1410	1510	671	997	854	4080	6770	4580	821	52	278
27	1150	1470	1440	707	1210	927	4070	6840	4170	647	492	329
28	1120	1500	1200	734	1210	491	4410	6820	4030	562	1030	288
29	1100	1470	684	716	1120	1000	4710	6800	4030	675	857	326
30	1070	1430	542	763	---	1360	4670	6690	4030	767	810	305
31	1210	---	567	820	---	945	---	6610	---	854	772	---
TOTAL	18032	44560	43753	21297	26094	26122	66074	187260	175690	54324	17265	10287
MEAN	582	1485	1411	687	900	843	2202	6041	5856	1752	557	343
MAX	1210	1880	1540	920	1210	1360	4710	6840	6580	3950	1030	763
MIN	165	1380	1540	567	810	618	1350	4660	4030	562	52	49
AC-FT	35770	88980	86780	42240	51760	51810	131100	371400	348500	107800	34250	20400
(†)	7450	0	0	0	0	6190	7310	7730	8160	8090	7640	7250
(‡)	3630	2.0	0	0	71	3950	4170	4300	4220	4670	4430	3930

CAL Yr 1979 TOTAL 866003 MEAN 2373 MAX 6820 MIN 101 AC-FT 1718000 † 55420 ‡ 29060
WTR Yr 1980 TOTAL 690758 MEAN 1887 MAX 6840 MIN 49 AC-FT 1370000 † 59830 ‡ 33370

† 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 years 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 periods.

SEDIMENT CONCENTRATIONS: Maximum daily, 343 mg/L June 16, 1975; minimum daily, 1 mg/L 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, 485 micromhos Sept. 12; minimum daily, 217 micromhos June 3.

WATER TEMPERATURES: Maximum, 24.0°C on several days in August; minimum, 3.5°C on several days in December and January.

SEDIMENT CONCENTRATIONS: Maximum daily, 101 mg/L May 11; minimum daily, 2 mg/L Sept. 22.

SEDIMENT LOADS: Maximum daily, 1,660 tons (1,510 tonnes) May 11; minimum daily, 0.41 tons (0.37 tonnes) Sept. 22.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER 0.062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER 0.125 MM (70332)
NOV 06...	1400	1440	10.5	19	74	95	100
FEB 27...	1400	1250	7.0	7	24	99	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.°C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	335	---	367	364	420	412	411	293	226	---	314	---
2	331	---	364	371	422	416	404	284	224	---	314	---
3	329	---	367	375	425	412	402	277	217	---	316	---
4	324	---	368	370	421	406	404	271	401	---	314	---
5	---	---	371	370	417	406	402	265	379	---	307	---
6	---	354	370	370	415	405	401	263	411	---	447	---
7	---	392	375	368	417	402	401	340	363	---	456	---
8	---	390	389	368	415	398	400	344	323	---	475	---
9	---	387	379	369	412	408	396	343	325	---	450	354
10	---	396	386	352	411	401	393	310	347	---	426	461
11	323	386	385	365	412	408	395	289	338	---	426	468
12	314	380	385	366	415	399	393	286	317	---	459	485
13	379	374	384	365	407	397	393	289	290	---	447	475
14	366	369	383	371	404	395	---	279	299	264	424	457
15	365	366	383	381	406	399	344	274	309	---	417	453
16	364	358	383	378	403	393	416	273	299	250	424	414
17	360	360	381	379	407	393	429	277	---	357	430	421
18	361	367	380	382	405	393	435	278	---	352	389	423
19	362	367	375	383	402	381	429	274	---	340	377	425
20	363	362	378	371	401	385	420	278	---	337	389	412
21	359	358	372	375	398	385	417	284	---	343	388	410
22	351	360	360	387	402	387	419	282	---	341	379	409
23	354	362	364	385	399	383	401	271	---	330	379	407
24	357	361	358	386	396	383	386	265	---	331	371	404
25	356	366	360	387	394	366	373	267	---	331	335	---
26	351	369	361	388	395	416	359	256	---	330	348	---
27	347	366	354	387	392	418	341	248	---	321	350	---
28	---	362	384	385	373	412	328	250	---	324	354	---
29	---	363	388	424	418	407	309	250	---	324	361	---
30	---	365	379	431	---	408	306	235	---	322	363	---
31	---	---	355	423	---	412	---	234	---	316	---	---
MEAN	350	370	374	380	407	400	390	278	317	324	388	430
WTR YR 1980		MEAN	369	MAX	485	MIN	217					

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 1979 TO SEPTEMBER 1980

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

RIO GRANDE BASIN
08317400 RIO GRANDE BELOW COCHITI DAM, NM -- Continued
WATER-QUALITY RECORDS

181

WATER TEMPERATURE (DEG.°C), RECORDER MAXIMUM, AND MEAN, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	16.0	15.0	15.5	21.0	19.5	20.0	23.5	23.0	23.5	22.5	22.0	22.5
2	16.0	15.5	15.5	21.5	20.0	21.0	24.0	23.0	23.5	22.5	22.0	22.0
3	16.0	15.5	15.5	21.0	20.5	20.5	24.0	23.0	23.5	22.5	22.0	22.0
4	16.0	15.5	15.5	21.0	20.0	20.5	24.0	22.5	23.5	22.5	21.5	22.0
5	16.0	15.5	16.0	21.5	20.0	21.0	24.0	23.0	23.5	22.0	22.0	22.0
6	16.5	16.0	16.5	21.5	20.0	21.0	24.0	22.0	23.5	22.0	21.5	22.0
7	16.5	16.0	16.5	21.5	21.0	21.5	23.5	22.5	23.0	22.0	21.5	22.0
8	16.5	16.0	16.0	21.5	20.5	21.5	24.0	22.5	23.0	22.0	21.5	22.0
9	17.0	16.5	16.5	22.0	20.5	21.0	24.0	23.0	23.5	22.0	21.5	21.5
10	17.5	17.0	17.0	21.5	21.0	21.5	24.0	23.0	24.0	22.0	21.5	21.5
11	18.0	17.0	17.5	22.0	21.0	21.5	24.0	23.0	23.5	22.0	21.0	21.5
12	18.5	18.0	18.0	22.0	21.0	21.5	24.0	23.0	23.5	22.0	21.0	21.5
13	18.5	18.0	18.0	22.0	21.5	22.0	24.0	23.0	23.5	22.0	21.0	21.5
14	18.5	18.0	18.5	22.0	21.5	22.0	24.0	23.0	23.5	22.0	21.0	21.5
15	18.5	18.0	18.5	22.0	21.5	22.0	24.0	23.5	23.5	22.0	20.5	21.0
16	19.0	18.0	18.5	22.5	21.0	22.0	24.0	23.0	23.5	22.0	20.5	21.0
17	18.5	18.0	18.0	22.0	21.0	21.5	23.5	23.0	23.5	22.0	21.0	21.5
18	19.0	18.5	18.5	22.0	21.0	21.5	24.0	22.5	23.0	22.0	20.5	21.0
19	19.5	18.5	19.0	23.0	21.5	22.0	24.0	22.5	23.0	22.0	20.5	21.0
20	19.5	18.5	19.0	23.5	22.0	22.5	23.5	22.0	23.0	22.0	20.0	21.0
21	19.5	18.5	18.5	23.0	22.0	22.5	24.0	22.0	22.5	22.0	20.0	21.0
22	19.0	18.5	18.5	23.5	22.0	22.5	23.5	22.0	22.5	22.0	20.0	20.5
23	19.0	18.0	18.5	23.0	23.0	23.0	23.5	22.0	22.5	22.5	20.0	21.0
24	19.0	18.5	19.0	23.0	22.5	23.0	23.5	22.0	22.5	22.0	20.0	20.5
25	19.5	18.5	19.5	23.0	22.5	23.0	23.5	22.0	22.5	22.0	20.0	20.5
26	20.0	18.5	19.5	23.5	22.0	23.0	23.0	22.0	22.5	21.0	20.0	20.5
27	20.5	19.0	20.0	23.5	22.0	22.5	24.0	22.0	23.0	21.0	20.0	20.5
28	21.5	19.5	20.5	23.5	22.0	22.5	23.5	23.0	23.5	21.0	20.0	20.5
29	21.0	19.5	20.0	23.5	22.0	23.0	23.5	23.0	23.0	21.5	20.0	20.5
30	20.5	19.5	20.0	23.5	22.5	23.0	23.0	22.5	22.5	21.0	20.0	20.5
31	---	---	---	23.5	23.0	23.0	23.0	22.0	22.5	---	---	---
MONTH	21.5	15.0	18.0	23.5	19.5	22.0	24.0	22.0	23.0	22.5	20.0	21.5
YEAR	24.0	3.5	13.5									

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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	10	19	19	67	20	77	13	20	5	12	40	124
2	16	39	22	85	16	63	18	29	5	12	40	122
3	25	62	22	84	15	60	13	23	5	11	24	74
4	19	47	23	86	15	59	16	26	4	9.0	30	85
5	17	39	24	95	21	84	14	21	5	11	35	97
6	16	32	26	102	20	81	12	18	5	11	25	70
7	15	29	28	108	24	97	12	19	6	13	9	25
8	14	28	30	120	27	109	9	16	5	11	8	19
9	12	22	30	126	22	89	9	17	6	14	10	17
10	11	19	23	95	21	86	9	15	6	14	8	14
11	10	16	21	107	15	62	8	14	8	17	13	27
12	17	17	25	112	17	71	10	18	6	13	12	25
13	30	19	29	128	20	83	10	19	6	13	27	46
14	26	15	26	121	18	75	7	13	5	12	20	40
15	15	6.7	25	111	19	79	4	7.4	4	9.1	10	19
16	15	5.5	18	75	14	58	6	11	5	11	12	20
17	16	6.0	25	101	13	54	6	12	5	12	7	12
18	7	2.1	18	71	20	83	6	12	5	13	14	25
19	11	4.4	29	110	18	74	6	12	6	14	11	21
20	16	7.8	20	75	16	67	6	12	5	12	21	41
21	18	8.7	25	94	18	75	5	9.9	5	13	20	37
22	20	9.7	38	144	23	94	4	7.5	3	7.8	24	47
23	14	8.0	30	114	22	90	4	8.0	6	16	20	46
24	10	6.2	32	122	22	90	6	13	6	15	19	43
25	24	30	33	126	20	82	4	8.0	10	23	21	46
26	28	78	30	114	23	94	6	11	9	24	40	92
27	21	65	26	103	18	70	5	9.5	22	72	46	115
28	19	57	16	65	17	55	6	12	33	108	38	50
29	19	56	30	119	19	35	6	12	33	100	38	103
30	18	52	23	89	10	15	25	52	---	---	35	129
31	18	59	---	---	10	15	7	15	---	---	39	100
TOTAL	---	865.1	---	3069	---	2226	---	492.3	---	622.9	---	1731

08317400 RIO GRANDE BELOW COCHITI DAM, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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	46	112	40	503	35	622	24	256	39	95	28	58
2	35	66	47	594	50	883	21	210	24	58	27	47
3	28	46	32	404	36	635	19	183	17	41	27	44
4	27	44	35	441	40	689	19	183	21	50	27	46
5	9	17	46	582	41	682	18	174	17	38	26	45
6	10	21	38	527	42	699	17	164	34	58	25	43
7	13	30	49	759	64	1070	17	161	37	52	22	38
8	11	29	82	1320	43	720	16	141	33	50	20	31
9	7	21	83	1350	40	663	15	112	30	59	20	25
10	6	21	88	1440	44	726	14	96	30	71	16	19
11	8	37	101	1660	48	814	13	69	34	72	16	15
12	7	37	99	1650	25	429	13	58	36	63	14	10
13	9	49	85	1460	28	482	14	55	41	72	12	12
14	11	50	37	624	33	570	19	60	46	95	14	11
15	10	36	66	1100	29	501	19	55	40	83	16	8.0
16	17	60	66	1100	35	603	17	39	40	53	10	7.0
17	15	75	61	1010	33	567	26	45	36	32	4	2.8
18	15	96	55	912	30	510	30	49	30	22	7	3.1
19	12	77	57	942	31	521	36	67	29	18	8	2.8
20	20	130	28	460	27	447	27	69	28	11	10	2.7
21	22	165	46	758	30	489	21	59	26	6.7	3	.58
22	24	194	54	940	29	467	24	62	22	5.7	2	.41
23	30	268	55	1000	29	460	28	75	25	6.5	6	.79
24	23	219	54	970	26	398	28	78	23	5.5	10	2.2
25	36	378	35	635	27	373	23	58	23	4.1	9	2.6
26	40	441	44	804	26	322	11	24	24	3.4	8	6.0
27	39	429	41	757	26	293	16	28	23	31	8	7.1
28	45	536	50	921	26	283	28	42	27	75	7	5.4
29	44	560	59	1080	26	283	27	49	30	69	7	6.2
30	36	454	38	686	26	283	22	46	28	61	7	5.8
31	---	---	48	857	---	---	24	56	28	58	---	---
TOTAL	---	4698	---	28246	---	16484	---	2823	---	1418.9	---	507.48
TOTAL LOAD FOR YEAR:	63183.68		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 mi² (1,544 km²).

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

GAGE.--Water-stage recorder above elevation 5,500.3 ft (1,676.49 m), nonrecording below. Datum of gage is 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 hm³) between elevations 5,496.0 ft (1,675.18 m), sill of ungated outlet conduit, and 5,608.0 ft (1,709.32 m), crest of uncontrolled spillway. No dead storage. Reservoir is used for flood control.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,510 acre-ft (3.09 hm³) July 26, 1971, elevation, 5,517.00 ft (1,681.582 m); no storage most of time.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 513 acre-ft (633,000 m³) Sept. 9 elevation, 5,510.32 ft (1,679.546 m); no storage most of time.

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

NOTE.--No contents at 2400 hours during water year.

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 mi² (1,546 km²).
 PERIOD OF RECORD.--March 1970 to current year.
 GAGE.--Water-stage recorder. Altitude of gage is 5,450 ft (1,661 m), from topographic map.
 REMARKS.--Records poor. Flow regulated by Galisteo Reservoir 0.6 mi (1.0 km) upstream. Diversions for irrigation of about 50 acres (20 hm²) above station.
 AVERAGE DISCHARGE.--10 years, 6.21 ft³/s (0.176 m³/s), 4,500 acre-ft/yr (5.55 hm³/yr).
 EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,000 ft³/s (56.6 m³/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, 371 ft³/s (10.5 m³/s) Aug. 7, gage height, 5.09 ft (1.551 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.59	.49	.19	.09	.00	.00	.00	.00
2	.00	.00	.00	.00	.50	.55	.62	.30	.00	.00	.00	.00
3	.00	.00	.00	.00	.40	.51	.43	.30	.00	.00	.00	.00
4	.00	.00	.00	.00	.40	1.0	.23	1.2	.00	.00	.00	.00
5	.00	.00	.00	.00	.40	.96	.18	4.6	.00	.00	.00	.00
6	.00	.00	.00	.00	.35	.64	.04	4.9	.00	.00	.00	.00
7	.00	.00	.00	.00	.60	.47	.00	4.1	.00	.00	23	.00
8	.00	.00	.00	.00	.52	.34	.00	3.2	.00	.00	47	.00
9	.00	.00	.00	.00	.45	.33	.00	2.6	.00	.00	17	.69
10	.00	.00	.00	.10	.52	.30	.07	1.7	18	.00	.98	1.4
11	.00	.00	.00	.10	.55	.88	.09	1.2	11	.00	.02	25
12	.00	.00	.00	.10	.64	.63	.77	.88	.07	.00	.00	.25
13	.00	.00	.00	.20	.55	.20	.40	.86	.00	.00	.00	.00
14	.00	.00	.00	.50	.92	.30	.30	.62	.00	.00	.00	.00
15	.00	.00	.00	.98	1.1	.26	.12	27	.00	.00	.00	.00
16	.00	.00	.00	.65	11	.22	.03	10	.00	.00	.00	.00
17	.00	.00	.00	.60	14	.13	.00	3.4	.00	.00	.00	.00
18	.00	.00	.00	.98	9.9	.20	.00	1.4	.00	.00	.00	.00
19	.00	.00	.00	.97	7.9	.26	.00	.88	.00	.00	12	.00
20	.00	.00	.00	.60	11	.23	.00	.44	.00	.00	.54	.00
21	.00	.00	.00	.50	11	.09	.00	.15	.00	20	.00	.00
22	.00	.00	.00	.38	7.0	.14	1.2	.01	.00	9.8	.00	.00
23	.00	.00	.00	.20	4.5	.12	.14	.05	.00	.01	.00	.00
24	.00	.00	.00	.25	3.0	.08	.34	.00	.00	.00	.00	.00
25	.00	.00	.00	.30	2.3	.27	.40	.00	.00	.00	.00	.00
26	.00	.00	.00	.24	2.1	.25	.28	.00	.00	.00	.00	.00
27	.00	.00	.00	.20	1.7	.84	.27	.00	.00	.00	15	.00
28	.00	.00	.00	.29	1.3	.75	.22	.00	.00	.00	.06	.00
29	.00	.00	.00	.30	.74	.68	.13	.00	.00	.00	.00	.00
30	.00	.00	.00	3.0	---	.51	.17	.00	.00	.00	.00	.00
31	.00	---	.00	.86	---	.30	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	12.31	95.93	12.93	6.62	69.88	29.07	29.81	115.60	95.65
MEAN	.000	.000	.000	.40	3.31	.42	.22	2.25	.97	.96	3.73	3.19
MAX	.00	.00	.00	3.0	14	1.0	1.2	27	18	20	47	69
MIN	.00	.00	.00	.00	.35	.08	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	24	190	26	13	139	58	59	229	190
CAL YR 1979	TOTAL	2067.49	MEAN	5.66	MAX	525	MIN	.00	AC-FT	4100		
WTR YR 1980	TOTAL	467.80	MEAN	1.28	MAX	69	MIN	.00	AC-FT	928		

08319000 RIO GRANDE AT SAN FELIPE, NM
(Surveillance network station)

LOCATION.--Lat 35°26'39", long 106°26'23", in SW¼ 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 mi² (41,670 km²), approximately, including 2,940 mi² (7,610 km²) 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. 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 km²) 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 ft³/s (38.91 m³/s), 995,500 acre-ft/yr (1.23 km³/yr) prior to closure of Cochiti Dam.
7 years (water years 1974-80), 1,319 ft³/s (37.35 m³/s), 955,600 acre-ft/yr (1.18 km³/yr) since closure of Cochiti Dam.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,300 ft³/s (773 m³/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 ft³/s (425 m³/s); minimum, 32 ft³/s (0.906 m³/s) July 7, 1934.
EXTREMES OUTSIDE PERIOD OF RECORD.--Other major floods occurred in 1874, 1884, and 1904.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,130 ft³/s (202 m³/s) May 30, gage height, 6.80 ft (2.073 m); minimum daily, 150 ft³/s (4.25 m³/s) Oct. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FFB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	695	1460	1620	578	893	1310	1120	4450	6810	4090	1150	974
2	1080	1540	1640	589	908	1330	919	4470	6750	3830	1150	900
3	1100	1600	1660	654	924	1340	751	4480	6750	3600	1100	745
4	1120	1500	1640	623	882	1300	746	4510	6650	3590	1020	787
5	1050	1610	1650	570	864	1300	795	4550	6440	3600	999	788
6	986	1610	1670	568	865	1270	973	5000	6410	3590	850	793
7	845	1610	1670	588	868	1240	1040	5400	6440	3540	603	772
8	888	1620	1660	634	859	1140	1190	5800	6470	3370	754	730
9	851	1710	1660	686	885	863	1310	6000	6470	2920	850	784
10	772	1660	1670	654	956	741	1480	6000	6500	2600	1000	515
11	805	1890	1670	625	794	913	1750	6200	6590	2240	950	613
12	528	1900	1670	663	851	934	2060	6400	6620	1800	800	398
13	381	1730	1670	697	852	840	2100	6300	6680	1670	800	462
14	289	1930	1650	697	883	768	1920	6240	6720	1300	850	455
15	310	1820	1660	700	927	923	1560	6280	6720	1000	950	316
16	240	1710	1650	705	865	740	1450	6270	6680	900	650	331
17	200	1690	1650	729	913	750	1790	6210	6620	800	450	392
18	150	1670	1650	783	1010	800	2310	6170	6560	750	387	313
19	170	1620	1650	751	979	950	2330	6140	6500	800	319	263
20	190	1580	1650	787	942	900	2370	6130	6440	1000	306	249
21	210	1580	1640	780	1010	850	2580	6160	6320	1100	217	217
22	240	1620	1640	727	1020	900	2800	6430	6230	1150	212	212
23	270	1620	1640	750	1090	950	3010	6790	6140	1020	212	200
24	312	1620	1620	816	1040	1000	3230	6830	5790	1120	210	198
25	366	1610	1620	801	883	906	3480	6910	5300	1060	190	225
26	1090	1620	1630	709	1010	967	3730	6960	4770	840	240	273
27	1330	1650	1580	695	1280	1020	3780	7020	4330	790	349	443
28	1320	1680	1410	784	1350	853	4000	7030	4110	850	1190	375
29	1320	1660	859	747	1240	752	4360	7000	4100	920	1040	408
30	1300	1630	574	786	---	1600	4420	6940	4120	1050	1000	410
31	1390	---	583	849	---	1120	---	6810	---	1150	1030	---
TOTAL	21798	49750	47906	21725	27843	31270	65354	187880	183030	58040	21828	14541
MEAN	703	1658	1545	701	960	1009	2178	6061	6101	1872	704	485
MAX	1390	1930	1670	849	1350	1600	4420	7030	6810	4090	1190	974
MIN	150	1460	574	568	794	740	746	4450	4100	750	190	198
AC-FT	43240	98680	95020	43090	55230	62020	129600	372700	363000	115100	43300	28840
(+)	4580	0	0	0	0	3170	3440	4040	4320	4140	4090	3850
CAL YR 1979	TOTAL	905506	MEAN	2481	MAX	6910	MIN	150	AC-FT	1796000		
WTR YR 1980	TOTAL	730965	MEAN	1997	MAX	7030	MIN	150	AC-FT	1450000		

(+) 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 years 1975 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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 AS CaCO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS Ca) (00915)
OCT												
11...	0900	836	300	8.1	16.0	13.0	11	8.3	4	110	13	36
NOV												
06...	0930	1580	325	8.2	7.5	10.5	17	--	23	120	24	38
DEC												
27...	1127	1600	320	8.0	3.5	3.0	17	12.3	21	130	30	39
JAN												
28...	1215	801	360	8.3	9.5	5.0	3.0	13.4	13	130	22	41
FEB												
27...	1030	1230	350	8.4	10.5	6.0	5.2	11.2	18	130	15	39
MAR												
25...	1000	900	320	8.3	8.0	8.5	12	11.0	15	130	25	39
APR												
15...	0845	1630	336	8.1	15.0	9.0	11	10.1	35	130	33	40
MAY												
06...	0830	4560	255	8.3	14.5	12.0	48	8.8	20	93	27	28
JUN												
03...	0950	7130	210	7.9	22.0	15.0	36	9.4	22	72	12	22
JUL												
08...	0820	3490	230	7.9	23.5	19.0	22	8.2	17	84	26	26
AUG												
05...	1037	1050	302	8.2	29.0	20.5	28	8.0	18	100	24	32
SEP												
09...	1110	909	420	8.1	19.5	19.5	750	7.2	580	160	38	48

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 (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 CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L) (00530)
OCT												
11...	5.7	16	.7	2.7	100	51	4.6	.3	18	199	195	35
NOV												
06...	6.2	18	.7	2.9	96	52	5.0	.3	17	208	198	38
DEC												
27...	6.7	17	.7	2.5	95	63	5.3	.3	20	227	212	17
JAN												
28...	7.1	23	.9	2.7	110	60	6.8	.4	22	249	230	9
FEB												
27...	6.7	19	.7	2.8	110	56	6.9	.4	23	201	221	21
MAR												
25...	6.8	20	.8	2.7	100	59	6.4	.4	20	211	215	--
APR												
15...	7.4	22	.8	2.8	97	71	6.5	.4	20	239	229	23
MAY												
06...	5.5	13	.6	2.1	66	45	2.5	.2	17	155	154	86
JUN												
03...	4.2	8.6	.4	1.8	60	27	2.3	.2	15	132	117	--
JUL												
08...	4.6	10	.5	2.1	58	37	2.8	.2	16	162	134	50
AUG												
05...	5.9	16	.7	2.9	80	46	5.2	.4	17	196	174	35
SEP												
09...	9.3	30	1.0	3.6	120	110	5.8	.6	14	303	294	9470

08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITRO- GEN, NO2+NO3 (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, ORTHOPH, DISSOL. (MG/L AS P) (00671)	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- PENDE (MG/L AS C) (00689)
OCT 11...	.09	.12	.020	.020	.59	.70	.040	.010	40	<10	5.5	.6
NOV 06...	.23	.22	.030	.020	.70	.96	.140	.040	40	10	4.1	.3
DEC 27...	.29	.27	.010	.010	.64	.94	.040	.020	30	30	9.8	.5
JAN 28...	.23	.22	.010	.010	.19	.43	.010	.030	40	<10	4.2	.3
FEB 27...	.24	.25	.030	.000	.36	.63	.160	.050	40	10	2.1	2.3
MAR 25...	.10	.13	.020	.000	.34	.46	.070	.030	30	<10	3.7	.6
APR 15...	.18	.12	.020	.000	.55	.75	.080	.040	40	<10	3.7	.7
MAY 06...	.12	.16	.040	.060	.62	.78	.100	.040	30	30	4.5	1.2
JUN 03...	.06	.06	.010	.010	.73	.80	.110	.030	30	20	7.5	1.1
JUL 08...	.09	.05	.010	.030	.80	.90	.100	.000	2	10	6.9	.4
AUG 05...	.00	.00	.000	.000	.53	.53	.090	.040	50	20	9.5	.4
SEP 09...	.16	.16	.000	.030	16	16	6.600	.020	70	50	6.4	30

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	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, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
MAR 25...	1000	3	30	0	20	25	.10	0	.1	0	10
JUN 03...	0950	2	30	0	0	0	20	0	.1	0	30
SEP 09...	1110	27	70	30	180	300	50	400	.5	3	650

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 TOTAL FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01029)
AUG 05...	1037	.0	7.3	230	420	8	1	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 AS AS) (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)
AUG 05...		10	8	3400	10	230	.02	14

RIO GRANDE BASIN

08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)	
AUG 05...	1037	.00	.00	.0	.00	.00	.00	.00	.00	
DATE	TIME	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)
AUG 05...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
DATE	TIME	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)
AUG 05...	.00	.00	.00	0	.00	.00	.00	.00	.0	.00

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 11...	0900	27	43
NOV 06...	0930	97	50
DEC 27...	1127	38	40
JAN 28...	1215	5	8
FEB 27...	1030	1	23
MAR 25...	1000	3	61
APR 15...	0845	14	69
MAY 06...	0830	90	100
JUN 03...	0950	86	200
JUL 08...	0820	110	160
AUG 05...	1037	130	250
SEP 09...	1110	13000	18000

08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (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									
11...	0900	836	13.0	40	90	52	--	--	--
NOV									
06...	0930	1580	10.5	161	687	23	--	--	--
DEC									
27...	1127	1600	3.0	87	376	20	--	--	--
JAN									
24...	1044	801	3.0	49	106	20	34	76	100
28...	1215	801	5.0	209	452	5	--	--	--
FEB									
27...	1030	1230	6.0	72	239	24	--	--	--
MAR									
25...	1000	900	8.5	25	61	94	--	--	--
APR									
15...	0845	1630	9.0	29	128	69	--	--	--
MAY									
06...	0830	4560	12.0	79	973	82	--	--	--
JUN									
03...	0950	7130	15.0	147	2830	79	--	--	--
JUL									
08...	0820	3490	19.0	31	292	93	--	--	--
AUG									
05...	1037	1050	20.5	43	122	91	--	--	--
SEP									
09...	1110	909	19.5	14300	35100	99	--	--	--

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 mi² (1,220 km²).

PERIOD OF RECORD.--June 1936 to May 1941, August 1949 to October 1950, May 1951 to September 1952 (irrigation seasons only), March 1953 to current year. Monthly discharge only for some periods, published in WSP 1732. Published as Jemez Creek near Jemez, 1936-41.

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 poor. Diversions for irrigation of about 300 acres (1.2 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--32 years (water years 1937-40, 1950, 1954-80), 70.5 ft³/s (1.997 m³/s), 51,080 acre-ft/yr (63.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,900 ft³/s (167 m³/s) Apr. 21, 1958, from rating curve extended above 2,200 ft³/s (62 m³/s) on basis of contracted-opening measurement; maximum gage height, 8.6 ft (2.62 m), May 6, 1941, present datum; minimum, 4.2 ft³/s (0.12 m³/s) Jan. 5, 1972, result of freezeup.

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 ft³/s or 170 m³/s), from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,450 ft³/s (41.1 m³/s) at 0300 hours Apr. 23, gage height, 7.14 ft (2.176 m); no other peak above base of 1,000 ft³/s (28.3 m³/s); minimum discharge, 9.2 ft³/s (0.26 m³/s Nov. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	24	21	26	23	42	56	529	278	27	22	16
2	15	24	22	26	23	44	73	472	243	28	22	16
3	16	24	24	21	24	48	64	469	229	30	25	15
4	17	26	25	22	26	46	70	506	222	27	26	14
5	18	25	25	25	22	44	77	521	217	27	23	16
6	21	23	23	24	27	42	86	491	210	25	23	18
7	21	28	24	27	33	45	107	522	200	24	27	21
8	21	40	23	27	30	41	112	661	191	24	35	24
9	21	38	23	26	26	41	128	594	276	26	63	37
10	21	33	22	27	22	44	147	538	207	24	65	41
11	19	30	25	25	24	49	192	540	189	23	39	39
12	20	26	26	30	27	46	185	500	167	21	30	32
13	20	24	23	35	27	39	172	441	144	23	30	32
14	21	27	20	28	34	40	168	430	129	27	34	30
15	18	29	21	25	44	51	205	495	116	25	37	27
16	16	27	23	27	40	55	286	526	97	22	36	25
17	17	28	23	28	37	47	386	526	87	21	30	25
18	20	31	22	29	36	50	477	453	80	21	26	23
19	21	30	22	30	41	54	569	442	74	21	23	19
20	21	30	24	28	52	49	638	464	70	21	22	19
21	26	28	26	26	45	55	803	489	66	24	20	19
22	31	20	26	25	42	71	1020	519	60	19	17	18
23	28	21	23	24	42	76	987	535	53	25	19	18
24	23	25	18	23	40	71	895	511	43	25	22	19
25	22	29	26	23	39	76	459	467	43	26	25	20
26	23	30	28	23	38	68	432	409	38	26	25	19
27	23	30	27	23	38	74	447	372	36	23	22	19
28	22	19	20	24	39	69	476	354	30	20	17	24
29	23	18	22	26	40	65	532	341	29	21	18	24
30	24	19	26	24	---	63	547	311	29	23	19	21
31	24	---	23	22	---	71	---	288	---	25	18	---
TOTAL	648	806	726	799	981	1676	10796	14716	3803	744	860	690
MEAN	20.9	26.9	23.4	25.8	33.8	54.1	360	475	127	24.0	27.7	23.0
MAX	31	40	28	35	52	76	1020	661	278	30	65	41
MIN	15	18	18	21	22	39	56	288	29	19	17	14
AC-FT	1290	1600	1440	1580	1950	3320	21410	29190	7540	1480	1710	1370
CAL YR 1979	TOTAL	56499	MEAN 155	MAX 1340	MIN 15	AC-FT 112100						
WTR YR 1980	TOTAL	37245	MEAN 102	MAX 1020	MIN 14	AC-FT 73880						

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 mi² (2,678 km²).

PERIOD OF RECORD.--October 1953 to September 1965 (monthend contents only), October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 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 hm³), 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 hm³) at elevation 5,232.0 ft or 1,594.71 m (floor of spillway which is located about 0.8 mi or 1.3 km south of dam). Capacity by original survey was 189,100 acre-ft (233 hm³). Original plan for reservoir operation was to desilt all flow above 30 ft³/s (0.85 m³/s) by storage for one day before releasing to Rio Grande, and for possible detention during flood stage on Rio Grande.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 71,220 acre-ft (87.8 hm³) 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, 6,950 acre-ft (8.57 hm³) Apr. 24 elevation, 5,171.25 ft (1,576.197 m); minimum contents, 1,590 acre-ft (1.96 hm³) Sept. 30, elevation, 5,158.53 ft (1,572.320 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 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2000	2050	1840	1940	1940	1980	2050	5910	3020	2160	1840	1760
2	1990	2070	1840	1940	1960	2010	2040	6040	2880	2150	1840	1740
3	1980	2090	1840	1950	1990	1980	2030	5840	2750	2140	1830	1740
4	1970	2120	1840	1960	2000	1880	2020	5650	2580	2120	1830	1730
5	1960	2120	1850	2000	2000	1800	2020	5570	2450	2090	1820	1720
6	1960	2120	1850	2040	2000	1760	2010	5420	2400	2080	1800	1720
7	1950	2160	1860	2050	2010	1760	2020	5300	2340	2070	1780	1710
8	1940	2310	1890	2040	2000	1770	2030	5390	2270	2060	1770	1700
9	1930	2240	1910	2020	2020	1780	2060	5600	2280	2050	1780	1750
10	1920	2120	1920	2010	2020	1780	2110	5570	2400	2040	1790	1860
11	1910	1990	1930	1980	2020	1810	2090	5540	2400	2030	1790	1890
12	1900	1860	1940	1990	2030	1830	2110	5410	2400	2020	1790	1760
13	1890	1810	1940	1990	2030	1840	2100	5190	2350	2000	1790	1770
14	1880	1820	1950	1980	2040	1880	2090	5020	2230	2000	1810	1780
15	1870	1840	1950	1980	2060	1910	2060	5220	2110	1980	1860	1790
16	1870	1870	1950	1980	2090	1930	2090	6000	2090	1970	1870	1790
17	1860	1900	1950	1940	2120	1960	2190	6390	2180	1960	1880	1670
18	1840	1920	1960	1940	2140	2000	2710	6800	2220	1950	1880	1670
19	1840	1960	1960	1960	2140	2000	3350	6860	2280	1930	1880	1660
20	1840	2010	1970	1960	2140	2000	4060	6540	2290	1920	1870	1660
21	1830	2030	1980	1950	2130	1990	4660	6270	2300	1910	1860	1660
22	1840	2040	2000	1940	2090	1990	5620	6080	2300	1900	1850	1650
23	1850	2100	2010	1890	2010	2000	6380	5890	2300	1900	1840	1640
24	1880	2140	2010	1870	1930	2020	6950	5660	2290	1890	1830	1630
25	1910	2190	2020	1870	1910	2040	6820	5430	2280	1880	1820	1620
26	1930	2160	2020	1870	1910	2050	6320	5200	2240	1870	1810	1610
27	1940	2060	2050	1880	1920	2060	5850	5050	2200	1870	1810	1600
28	1960	2020	2060	1860	1930	2060	5590	4580	2190	1860	1800	1600
29	1970	2000	2020	1880	1950	2060	5410	4170	2180	1860	1790	1600
30	2010	1980	1980	1910	---	2050	5610	3670	2170	1850	1780	1590
31	2030	---	1950	1920	---	2040	---	3340	---	1850	1770	---
MAX	2030	2310	2060	2050	2140	2060	6950	6860	3020	2160	1880	1890
MIN	1830	1810	1840	1860	1910	1760	2010	3340	2090	1850	1770	1590
(+)	5160.16	5159.98	5159.89	5159.77	5159.87	5160.21	5168.99	5164.08	5160.64	5159.51	5159.21	5158.53
(+)	+20	-50	-30	-30	+30	+90	+3570	-2270	-1170	-320	-80	-180
CAL YR 1979	MAX	20250	MIN	.00	(+)	+1950						
WTR YR 1980	MAX	6950	MIN	1590	(+)	-420						

(+) 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 mi² (2,688 km²).

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 regulated 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 km²) above station.

AVERAGE DISCHARGE.--38 years (water years 1937, 1944-80), 56.1 ft³/s (1.589 m³/s), 40,640 acre-ft/yr (50.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,300 ft³/s (462 m³/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 ft³/s (85.0 m³/s); no flow for many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood in 1900 was probably less than 16,000 ft³/s (453 m³/s), but highest observed outside period of record.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 713 ft³/s (20.2 m³/s) April 25, 26, gage height, 7.21 ft (2.198 m); no flow, Nov. 3, Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.23	23	18	19	17	52	388	475	1.9	1.3	.86
2	1.0	.09	22	11	19	17	51	574	386	1.9	1.3	.90
3	.99	.00	19	11	19	76	50	637	314	1.7	1.5	.90
4	.98	.03	15	11	20	115	49	637	316	1.7	1.3	.90
5	.90	9.6	15	11	20	90	49	646	260	1.6	1.3	.90
6	.87	16	15	11	20	33	48	650	216	1.5	1.3	.90
7	.84	16	15	22	19	14	47	650	218	1.5	1.4	.85
8	.80	50	14	42	19	11	45	650	218	1.5	1.4	.75
9	.75	81	14	42	19	12	43	650	176	1.5	1.4	.93
10	.75	79	14	42	19	12	83	650	159	1.5	.81	.07
11	.75	78	14	42	18	12	142	646	159	1.5	.70	.00
12	.75	76	13	41	18	13	137	646	161	1.5	.85	113
13	.75	43	13	41	18	12	134	645	161	1.5	.90	.50
14	.75	8.5	13	41	23	12	129	645	159	1.7	1.3	.41
15	.72	1.0	13	41	35	12	137	215	158	1.5	1.2	.30
16	.68	.81	13	41	35	12	140	239	77	1.5	1.2	.30
17	.93	.75	13	41	34	13	166	368	24	1.5	1.2	52
18	.91	.75	13	40	34	27	197	368	23	1.7	1.2	.96
19	.82	.84	13	41	50	36	230	570	23	1.9	1.2	.90
20	.80	.76	13	41	65	35	228	685	23	1.9	1.2	.90
21	.95	.75	13	40	64	35	339	681	24	1.7	1.2	.90
22	.50	.75	13	40	64	35	417	677	23	1.8	1.2	.90
23	.50	.75	13	39	64	34	581	671	23	1.6	1.2	.90
24	.50	.75	13	33	62	33	692	666	23	1.6	1.2	.87
25	.50	.76	13	22	35	37	703	660	23	1.5	1.2	1.0
26	.25	46	15	17	17	44	697	654	23	1.5	1.2	1.2
27	.25	79	19	18	17	52	689	649	15	1.3	1.2	1.2
28	.25	54	26	18	17	50	688	638	2.0	1.3	1.0	1.3
29	.26	37	41	18	17	50	567	629	1.9	1.3	1.0	1.3
30	.35	29	41	18	---	49	514	576	1.9	1.3	1.0	1.2
31	.20	---	27	19	---	51	---	484	---	1.3	.86	---
TOTAL	21.25	711.12	531	913	880	1047	8044	18144	3865.8	48.7	36.22	188.00
MEAN	.69	23.7	17.1	29.5	30.3	33.8	268	585	129	1.57	1.17	6.27
MAX	1.0	81	41	42	65	115	703	685	475	1.9	1.5	113
MIN	.20	.00	13	11	17	11	43	215	1.9	1.3	.70	.00
AC-FT	42	1410	1050	1810	1750	2080	15960	35990	7670	97	72	373

CAL YR 1979 TOTAL 49870.74 MEAN 137 MAX 1560 MIN .00 AC-FT 98920
WTR YR 1980 TOTAL 34430.09 MEAN 94.1 MAX 703 MIN .00 AC-FT 68290

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

[illegible]

RIO GRANDE BASIN

08329000 JEMEZ RIVER BELOW JEMEZ CANYON DAM, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT 01...	1510	20	820	10
MAY 06...	1115	11	170	40

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. 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 ft³/s (312 m³/s) Aug. 14, 1980, gage height, 10.4 ft (3.170 m) from rating curve extended above 2,900 ft³/s (82 m³/s); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,000 ft³/s (312 m³/s) at 0530 hours Aug. 14, gage height, 10.4 ft (3.17 m) from rating curve extended above 2,900 ft³/s (82 m³/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00					---	6.8	.00	.00	.00	.00	.00
2	.00					---	.00	.00	.00	.00	14	.00
3	.00					---	.00	39	.00	.00	52	.00
4	.00					---	.00	.00	.00	.00	15	6.7
5	.00					.00	.00	.00	.00	.00	12	50
6	.00					.00	.00	.00	.00	.00	3.8	159
7	.00					.00	.00	.00	.00	.00	63	100
8	.00					.00	.00	11	.00	.00	.00	71
9	.00					.00	.00	.00	.00	.00	3.9	276
10	.00					.00	.00	.00	.00	.00	38	17
11	.00					14	.00	.00	.00	.00	.00	90
12	.00					.00	.00	.00	.00	.00	.00	.00
13	.00					.00	.00	.00	.00	.00	4.2	.00
14	.00					.00	.00	22	.00	.00	1060	.00
15	.00					.00	.00	43	.00	.00	18	.00
16	.00					.00	.00	.00	.00	.00	.00	.00
17	.00					.00	.00	.00	.00	.00	.00	.00
18	.00					.00	.00	.00	.00	.00	.00	.00
19	.00					14	.00	.00	.00	.00	200	.00
20	30					12	.00	.00	.00	.00	.00	.00
21	.00					.00	.00	.00	.00	79	.00	.00
22	.00					.00	.00	.00	.00	.00	.00	.00
23	.00					.00	.00	.00	.00	.00	.00	.00
24	.00					.00	115	.00	.00	.00	.00	.00
25	.00					.00	56	.00	.00	.00	.00	.00
26	.00					.00	.00	.00	.00	.00	.00	.00
27	.00					44	.00	.00	.00	.00	.00	.00
28	.00					9.3	.00	.00	.00	.00	.00	32
29	.00					.00	.00	.00	.00	.00	.00	10
30	.00					.00	.00	.00	.00	.00	.00	10
31	---					28	---	.00	---	7.2	.00	---
TOTAL	---					---	177.80	115.00	.00	86.20	1483.90	821.70
MEAN	---					---	5.93	3.71	.000	2.78	47.9	27.4
MAX	---					---	115	43	.00	79	1060	276
MIN	---					---	.00	.00	.00	.00	.00	.00
AC-FT	---					---	353	228	.00	171	2940	1630

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 mi² (45,170 km²), approximately, including 2,940 mi² (7,610 km²) 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 1929. 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 km²), 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 ft³/s (30.25 m³/s), 773,800 acre-ft/yr (0.95 km³/yr) prior to closure of Cochiti Dam.

7 years (calendar years 1974-80), 1,200 ft³/s (33.98 m³/s), 869,400 acre-ft/yr (1.07 km³/yr) since closure of Cochiti Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft³/s (708 m³/s) Apr. 24, 1942, from rating curve extended above 13,900 ft³/s (394 m³/s); maximum gage height, 7.82 ft (2.384 m) Aug. 10, 1967; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,600 ft³/s (215 m³/s) at 0800 hours Aug. 14, gage height, 6.50 ft (1.981 m); minimum daily, 6.0 ft³/s (0.17 m³/s) Sept. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	1520	1570	589	986	1290	1150	4790	6570	4150	608	570
2	19	1620	1630	560	1020	1380	1090	5010	6840	3980	667	542
3	324	1720	1650	604	1040	1290	889	5380	6690	3580	692	454
4	440	1710	1670	707	997	1390	760	5080	6660	3550	728	370
5	510	1770	1560	681	925	1440	709	5010	6540	3550	693	385
6	475	1840	1590	668	881	1450	799	5310	6270	3500	614	488
7	389	1830	1650	681	890	1340	916	5700	6420	3450	463	575
8	336	1800	1660	715	918	1430	1040	6150	6580	3380	369	470
9	347	1850	1690	760	892	1200	1150	6230	6560	3100	469	1050
10	325	1770	1630	798	957	720	1260	6460	6660	2490	530	907
11	310	1950	1590	750	908	722	1460	6550	6510	2450	700	852
12	294	1950	1540	846	781	898	2180	6410	6410	1600	573	630
13	164	1870	1630	762	864	880	2230	6410	6540	1480	446	522
14	86	2070	1710	818	940	699	2160	6480	7060	1160	1890	479
15	28	2090	1720	1010	1040	675	1640	6380	6640	885	1010	438
16	18	2020	1790	840	1160	728	1240	6080	6340	775	830	307
17	14	1830	1720	838	997	554	1120	6200	6130	557	548	314
18	18	1690	1640	917	1050	588	2100	6020	6240	430	378	370
19	19	1640	1650	969	1070	679	2410	6130	6260	385	282	158
20	17	1630	1630	932	1040	740	2460	6130	6580	363	190	85
21	17	1570	1660	944	1050	627	2510	6140	6510	710	162	64
22	19	1570	1590	887	1100	546	3100	6170	6170	949	108	49
23	19	1570	1610	860	1160	623	3310	6710	5910	779	82	38
24	21	1480	1560	906	1210	762	3690	6790	5450	761	70	18
25	29	1490	1580	955	1110	752	3810	7120	4850	849	70	6.0
26	21	1510	1690	898	984	661	4230	6900	4760	763	58	9.0
27	308	1580	1640	822	1140	800	4260	6960	4600	634	35	14
28	691	1580	1520	853	1410	992	4660	7130	4280	489	32	88
29	775	1580	1320	883	1390	687	5080	7090	4120	329	521	158
30	888	1590	891	940	---	1240	4790	6900	4120	386	561	172
31	988	---	620	921	---	1600	---	6480	---	504	543	---
TOTAL	7930	51690	48601	25314	29910	29383	68203	192300	181270	51968	14922	10582.0
MEAN	256	1723	1568	817	1031	948	2273	6203	6042	1676	481	353
MAX	988	2090	1790	1010	1410	1600	5080	7130	7060	4150	1890	1050
MIN	14	1480	620	560	781	546	709	4790	4120	329	32	6.0
AC-FT	15730	102500	96400	50210	59330	58280	135300	381400	359500	103100	29600	20990
(+)	22820	2080	1670	2110	1810	9170	13240	15910	14720	16720	13930	10600

CAL YR 1979 TOTAL 885168.0 MEAN 2425 MAX 7870 MIN 14 AC-FT 1756000 (+) 129800
 WTR YR 1980 TOTAL 712073.0 MEAN 1946 MAX 7130 MIN 6.0 AC-FT 1412000 (+) 124800

(+) 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 years 1969 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1969 to current year.

WATER TEMPERATURES: October 1969 to current year.

SUSPENDED SEDIMENT DISCHARGES: 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 microhms 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, 893 micromhos Sept. 13; minimum daily, 115 micromhos Aug. 14.

WATER TEMPERATURES: Maximum, 23.0°C Aug. 9; minimum, 3.0°C Dec. 27, 29, 30, Jan. 8, 10.

SEDIMENT CONCENTRATIONS: Maximum daily, 7,600 mg/L Sept. 10; minimum daily, 27 mg/L Oct. 25.

SEDIMENT LOADS: Maximum daily, 24,900 tons (22,600 tonnes) Aug. 14; minimum daily, 1.4 tons (1.3 tonnes) Oct. 21, 22.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (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											
29...	1000	779	11.0	318	669	--	--	--	--	--	45
NOV											
13...	1113	1820	8.5	599	2940	--	--	--	--	--	20
DEC											
03...	1103	1680	4.5	1620	7350	2	2	2	3	3	4
17...	1517	1650	5.0	561	2500	--	--	--	--	--	12
JAN											
14...	1014	850	7.0	168	386	--	--	--	--	--	19
FEB											
04...	1424	1030	9.0	390	1090	--	--	--	--	--	6
19...	1019	1020	7.5	182	501	14	16	18	20	23	32
MAR											
10...	1031	698	7.0	190	358	--	--	--	--	--	22
APR											
07...	1007	926	11.0	126	315	--	--	--	--	--	29
21...	1021	2480	14.5	692	4630	9	9	--	12	--	24
28...	1028	4730	12.5	2120	27100	4	5	--	5	--	12
MAY											
12...	1112	6900	13.0	1690	31500	8	8	--	10	--	17
27...	1000	6610	14.0	2060	36800	4	4	5	6	7	13
JUN											
09...	1029	6610	17.0	1520	27100	3	4	4	5	6	9
23...	1055	5820	19.0	2060	32400	2	2	3	3	4	5
JUL											
21...	1000	638	22.0	108	186	--	--	--	--	--	--
AUG											
04...	1104	740	24.0	118	236	38	49	57	66	72	--
09...	1800	522	23.0	12000	16900	60	80	--	99	--	100
18...	1018	377	22.5	436	444	16	18	--	22	--	27
SEP											
03...	1403	422	24.5	135	154	40	49	58	67	75	--
15...	1115	447	21.5	229	276	46	57	--	79	--	--
29...	1129	170	20.0	159	73	56	69	81	88	92	--

RIO GRANDE BASIN

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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. FALL DIAM. % FINER THAN 2.00 MM (70347)	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 29...	56	95	100	--	--	--	--	--	--	--	--
NOV 13...	29	84	100	--	--	--	--	--	--	--	--
DEC 03...	6	--	95	100	--	--	--	--	49	--	--
17...	21	88	99	100	--	--	--	--	--	--	--
JAN 14...	26	89	100	--	--	--	--	--	--	--	--
FEB 04...	9	38	95	100	--	--	--	--	--	--	--
19...	40	82	99	100	--	--	--	--	--	--	--
MAR 10...	27	50	98	100	--	--	--	--	--	--	--
APR 07...	38	84	100	--	--	--	--	--	--	--	--
21...	33	86	100	--	--	--	--	--	--	--	--
28...	19	53	83	99	100	--	--	--	--	--	--
MAY 12...	28	70	96	100	--	--	--	--	--	--	--
27...	21	59	89	100	--	--	--	--	--	--	--
JUN 09...	16	68	94	100	--	--	--	--	--	--	--
23...	9	46	82	100	--	--	--	--	--	--	--
JUL 21...	--	--	--	--	--	60	60	80	95	99	100
AUG 04...	--	--	--	--	--	77	81	96	100	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
18...	27	36	96	100	--	--	--	--	--	--	--
SEP 03...	--	--	--	--	--	85	87	92	100	--	--
15...	--	--	--	--	--	91	93	98	100	--	--
29...	--	--	--	--	--	96	97	99	100	--	--

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
OCT 29...	1000	779	318	669	15	17	54	92
NOV 13...	1113	1820	599	2940	1	1	48	94
DEC 03...	1103	1680	1620	7350	1	3	58	93
17...	1517	1650	561	2500	2	4	43	69
JAN 14...	1014	850	168	386	1	1	48	91
FEB 04...	1424	1030	390	1090	0	0	24	73
19...	1019	1020	182	501	0	0	26	79
MAR 10...	1031	698	190	358	0	1	52	94
APR 07...	1007	926	126	315	1	1	25	79
21...	1021	2480	692	4630	1	2	45	88
28...	1028	4730	2120	27100	0	0	14	63
MAY 12...	1112	6900	1690	31500	7	8	21	58
27...	1000	6610	2060	36800	0	0	3	47
JUN 09...	1029	6610	1520	27100	6	6	22	72
23...	1055	5820	2060	32400	0	0	12	55
JUL 21...	1000	638	108	186	1	1	16	71
AUG 04...	1104	740	118	236	2	3	27	52
18...	1018	377	436	444	1	1	27	66
SEP 15...	1115	447	229	276	1	1	28	77
29...	1129	170	159	73	0	0	32	88

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

WATER-QUALITY RECORDS

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	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)
OCT 29...	97	100	--	--	--	--	--	--
NOV 13...	98	100	--	--	--	--	--	--
DEC 03...	100	--	--	--	--	--	--	--
17...	82	--	--	85	89	93	96	100
JAN 14...	--	--	97	99	99	100	--	--
FEB 04...	--	--	77	79	79	80	83	100
19...	--	--	83	84	85	85	88	100
MAR 10...	--	--	98	99	100	--	--	--
APR 07...	--	--	86	91	93	95	97	100
21...	--	--	92	96	98	99	100	--
28...	--	--	79	85	88	91	97	100
MAY 12...	--	--	79	82	84	85	91	100
27...	--	--	65	84	92	97	100	--
JUN 09...	--	--	77	81	83	86	89	100
23...	--	--	60	62	63	66	72	90
JUL 21...	--	--	88	93	96	98	100	--
AUG 04...	--	--	60	63	66	70	78	100
18...	--	--	72	74	76	79	85	100
SEP 15...	--	--	85	90	93	95	97	100
29...	98	100	--	--	--	--	--	--

TOTAL SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SEDI- MENT DISCH. TOTAL, SUSP.+ BEDLOAD (T/DAY) (80156)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOC- ITY, MEAN (FPS) (00055)
NOV 13...	1113	1820	8.5	599	2940	5070	313	2.1	2.8
DEC 03...	1103	1680	4.5	1620	7350	11300	305	2.0	2.7
17...	1517	1650	5.0	561	2500	4600	325	1.8	2.8
JAN 14...	1014	850	7.0	168	386	1000	292	1.4	2.1
FEB 04...	1424	1030	9.0	390	1090	2020	324	1.5	2.1
19...	1019	1020	7.5	182	501	934	306	1.6	2.1
APR 07...	1007	926	11.0	126	315	610	310	1.6	1.9
28...	1028	4730	12.5	2120	27100	37700	315	3.2	4.7
MAY 12...	1112	6900	13.0	1690	31500	44100	325	4.7	4.5
JUN 09...	1029	6610	17.0	1520	27100	39100	320	4.3	4.8
JUL 21...	1000	638	22.0	108	186	316	315	1.2	1.7
AUG 18...	1018	377	22.5	436	444	629	300	.89	1.4
SEP 15...	1115	447	21.5	229	276	358	291	.96	1.6
29...	1129	170	20.0	159	73	91	134	.89	1.4

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	351	330	344	---	406	400	437	---	217	241	343	143
2	361	328	327	---	412	400	438	319	215	242	342	143
3	297	330	339	382	411	403	444	314	232	243	346	143
4	298	345	335	350	410	473	459	302	227	244	345	354
5	305	351	336	382	413	486	465	302	224	242	352	361
6	293	355	323	389	409	459	462	295	223	242	140	342
7	302	348	343	421	414	420	455	297	221	243	146	340
8	299	331	336	407	409	400	453	291	219	243	146	381
9	303	359	347	460	412	---	444	285	217	243	262	317
10	308	449	324	430	412	420	437	283	216	249	173	468
11	306	420	349	423	410	426	467	276	212	259	149	384
12	308	366	---	437	416	411	454	264	209	261	147	392
13	319	383	---	454	418	408	442	268	208	263	150	893
14	340	332	344	450	407	414	437	260	205	269	115	432
15	347	335	---	386	412	425	448	231	206	275	141	411
16	340	323	---	478	403	411	447	245	209	280	149	421
17	365	322	351	458	428	419	464	243	203	286	151	427
18	361	326	354	496	428	422	458	245	205	303	155	546
19	380	325	328	475	430	434	446	246	208	---	157	436
20	370	310	350	446	442	428	424	---	210	---	162	429
21	374	315	333	---	463	435	427	256	214	299	164	437
22	368	308	348	---	458	435	430	254	218	---	168	428
23	368	329	---	466	460	446	416	253	224	301	169	451
24	380	327	346	434	445	437	407	249	226	298	172	453
25	387	322	336	444	448	422	358	241	232	291	173	467
26	380	329	331	414	422	420	373	238	233	319	173	463
27	340	375	322	460	411	436	357	230	224	337	174	---
28	320	380	335	438	394	441	356	225	233	344	177	---
29	324	363	357	444	392	441	341	224	236	348	153	419
30	325	335	387	411	---	427	---	222	238	348	143	436
31	327	---	405	360	---	416	---	219	---	350	143	---
MEAN	337	345	343	429	421	427	429	261	219	281	190	404
WTR YR 1980		MEAN	339	MAX	893	MIN	115					

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	8.0	6.0	---	6.0	8.0	6.0	---	17.0	20.0	20.0	17.0
2	19.0	9.0	5.0	---	5.0	6.0	6.0	12.0	15.0	20.0	19.0	18.0
3	17.0	8.0	5.0	4.0	6.0	8.0	7.0	13.0	16.0	20.0	21.0	18.0
4	18.0	8.0	6.0	4.0	6.0	7.0	6.0	15.0	16.0	20.0	19.0	17.0
5	17.0	9.0	5.0	4.0	6.0	8.0	7.0	14.0	17.0	20.0	19.0	17.0
6	18.0	8.0	6.0	4.0	6.0	8.0	10.0	15.0	17.0	19.0	20.0	17.0
7	17.0	8.0	5.0	4.0	7.0	8.0	9.0	15.0	18.0	19.0	20.0	15.0
8	18.0	8.0	5.0	3.0	4.0	8.0	10.0	17.0	17.0	21.0	19.0	16.0
9	17.0	7.0	5.0	4.0	6.0	---	11.0	15.0	17.0	20.0	23.0	15.0
10	17.0	8.0	5.0	3.0	6.0	9.0	11.0	17.0	16.0	20.0	21.0	15.0
11	17.0	8.0	5.0	4.0	6.0	9.0	12.0	16.0	17.0	21.0	19.0	15.0
12	17.0	7.0	---	5.0	6.0	9.0	8.0	14.0	17.0	21.0	19.0	14.0
13	17.0	8.0	---	5.0	4.0	9.0	8.0	15.0	17.0	20.0	20.0	14.0
14	17.0	8.0	5.0	6.0	5.0	9.0	7.0	14.0	16.0	20.0	18.0	16.0
15	16.0	8.0	---	5.0	5.0	9.0	11.0	13.0	16.0	19.0	19.0	19.0
16	17.0	8.0	---	5.0	6.0	8.0	12.0	13.0	15.0	20.0	20.0	18.0
17	16.0	8.0	6.0	6.0	7.0	7.0	12.0	16.0	19.0	20.0	18.0	17.0
18	16.0	7.0	5.0	6.0	6.0	8.0	13.0	16.0	18.0	21.0	17.0	17.0
19	16.0	7.0	6.0	5.0	7.0	8.0	13.0	17.0	19.0	---	18.0	18.0
20	17.0	7.0	5.0	4.0	5.0	8.0	13.0	---	19.0	---	17.0	18.0
21	16.0	7.0	5.0	---	6.0	8.0	13.0	17.0	19.0	22.0	18.0	16.0
22	14.0	7.0	5.0	---	7.0	8.0	14.0	16.0	19.0	---	18.0	16.0
23	16.0	6.0	---	6.0	7.0	7.0	13.0	17.0	19.0	19.0	18.0	16.0
24	15.0	6.0	5.0	5.0	7.0	8.0	11.0	17.0	19.0	20.0	19.0	16.0
25	15.0	7.0	4.0	6.0	6.0	7.0	13.0	18.0	20.0	20.0	17.0	16.0
26	16.0	7.0	4.0	5.0	7.0	7.0	14.0	16.0	20.0	20.0	17.0	15.0
27	18.0	7.0	3.0	6.0	8.0	7.0	13.0	15.0	20.0	21.0	17.0	---
28	13.0	6.0	4.0	5.0	8.0	8.0	13.0	17.0	20.0	20.0	17.0	---
29	12.0	6.0	3.0	5.0	8.0	7.0	14.0	16.0	20.0	20.0	17.0	18.0
30	10.0	6.0	3.0	6.0	---	11.0	---	17.0	20.0	21.0	18.0	17.0
31	8.0	---	5.0	5.0	---	7.0	---	17.0	---	19.0	17.0	---
MEAN	16.0	7.5	5.0	5.0	6.0	8.0	10.5	15.5	18.0	20.0	18.5	16.5
WTR YR 1980		MEAN	12.5	MAX	23.0	MIN	3.0					

DAY	MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (MG/L)	
	LOADS (T/DAY)	OCTOBER	LOADS (T/DAY)	NOVEMBER	LOADS (T/DAY)	DECEMBER	LOADS (T/DAY)	JANUARY	LOADS (T/DAY)	FEBRUARY	LOADS (T/DAY)	MARCH
1	81	4.6	605	2480	200	848	45	72	115	306	157	547
2	58	3.0	275	1200	204	898	44	81	72	198	298	1110
3	172	152	326	1510	1340	5970	39	64	125	351	94	327
4	126	150	324	1500	205	924	41	78	281	756	76	285
5	130	179	200	956	145	611	40	74	46	115	76	295
6	95	122	190	944	172	738	39	70	54	128	112	438
7	66	69	172	850	143	637	46	85	50	120	204	738
8	62	56	208	1150	140	627	60	116	48	119	100	386
9	65	61	196	1090	120	548	55	113	50	120	102	330
10	61	54	190	1060	127	559	52	112	60	155	111	244
11	69	58	168	980	163	700	61	124	44	108	63	123
12	62	49	375	2450	208	865	83	190	30	63	81	196
13	44	19	417	2110	286	1260	44	91	31	72	61	145
14	34	7.9	205	1150	541	2500	139	307	35	89	43	81
15	29	2.2	174	982	515	2390	233	635	44	124	51	93
16	30	1.5	126	687	420	2030	57	129	96	301	52	102
17	124	4.7	126	623	350	1630	37	84	43	116	61	91
18	132	6.4	130	593	146	646	52	129	45	128	43	68
19	68	3.5	132	584	125	557	63	165	113	326	62	114
20	44	2.0	143	629	138	607	44	111	62	174	67	134
21	31	1.4	119	504	125	560	46	117	64	181	54	91
22	28	1.4	118	500	156	670	45	108	95	282	54	80
23	48	2.5	105	445	148	643	44	102	76	238	77	130
24	31	1.8	125	499	127	535	62	152	85	278	96	198
25	27	2.1	140	563	155	661	59	152	86	258	85	173
26	38	2.2	169	689	150	684	32	78	58	154	69	123
27	213	254	168	717	192	850	29	64	86	265	70	151
28	257	479	240	1020	137	562	31	71	124	472	85	228
29	282	590	373	1590	83	296	32	76	93	349	73	146
30	165	396	224	962	51	123	34	86	---	---	211	920
31	149	397	---	---	40	67	51	127	---	---	143	618
TOTAL	---	3132.2	---	31017	---	31196	---	3963	---	6346	---	8705
DAY	MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (MG/L)	
	LOADS (T/DAY)	APRIL	LOADS (T/DAY)	MAY	LOADS (T/DAY)	JUNE	LOADS (T/DAY)	JULY	LOADS (T/DAY)	AUGUST	LOADS (T/DAY)	SEPTEMBER
1	81	252	427	5880	497	8820	289	3370	99	163	229	352
2	71	209										

RIO GRANDE BASIN

08330600 TIJERAS ARROYO NEAR ALBUQUERQUE, NM

LOCATION.--Lat 35°00'04", long 106°39'18", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ 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 mi² (344 km²).

PERIOD OF RECORD.--October 1951 to September 1968, (annual maximum only), August 1974 to current year.

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 ft³/s (71.6 m³/s) June 24, 1967, (gage height not determined); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 980 ft³/s (27.8 m³/s) Aug. 14, gage height, 3.30 ft (1.006 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00					---	2.2	.00	.00	.00	.00	.00
2	.00					---	.00	.00	.00	.00	.00	.00
3	.00					---	.00	.00	.00	.00	.00	.00
4	.00					---	.00	.00	.00	.00	.00	.00
5	.00					---	.00	.00	.00	.00	.00	.00
6	.00					---	.00	2.2	.00	1.2	.00	11
7	.00					.00	.00	2.6	.00	.00	.00	37
8	.00					.00	.00	.00	.00	.00	.00	8.1
9	.00					.00	.00	.00	.00	.00	7.2	48
10	.00					.00	.00	.00	.00	.00	2.2	19
11	.00					.00	.00	.00	.00	.00	2.0	37
12	.00					.00	.00	.00	.00	2.0	.00	8.6
13	.00					.00	.00	.00	.00	3.0	.00	.00
14	.00					.00	.00	1.4	.00	.00	105	.00
15	.00					.00	.00	3.8	.00	.00	5.0	.00
16	.00					.00	.00	.00	.00	.00	.00	.00
17	.00					.00	.00	.00	.00	.00	.00	.00
18	.00					.00	.00	1.8	.00	.00	.00	.00
19	.00					.00	.00	1.5	.00	.00	.00	.00
20	.00					.00	.00	.00	.00	.00	.00	.00
21	.00					.00	.00	.00	1.2	7.3	.00	.00
22	.00					.00	.00	.00	.00	3.4	.00	.00
23	.00					.00	.00	.00	.00	.00	.00	.00
24	.00					.00	11	.00	.00	.00	.00	.00
25	.00					.00	6.0	.00	.00	.00	.00	.00
26	.00					.00	.00	.00	.00	.00	.00	.00
27	.00					4.3	.00	.00	.00	.00	.00	.00
28	.00					6.0	.00	.00	.00	.00	.00	.00
29	.00					11	.00	.00	.00	.00	.00	.00
30	.00					.00	.00	.00	.00	.00	.00	.00
31	.00					3.5	---	.00	---	.00	.00	---
TOTAL	.00					---	19.20	13.30	1.20	16.90	121.40	168.70
MEAN	.000					---	.64	.43	.040	.55	3.92	5.62
MAX	.00					---	11	3.8	1.2	7.3	105	48
MIN	.00					---	.00	.00	.00	.00	.00	.00
AC-FT	.00					---	38	26	2.4	34	241	335

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.

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 except those for period of no gage height record June 3 to July 17, which are poor. 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 ft³/s (41.1 m³/s) Aug. 19, 1976, gage height, (not determined); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,100 ft³/s (31.2 m³/s) Aug. 14, gage height, 3.60 ft (1.097 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00					---	4.0	.00	.00	.00	.00	.00
2	.00					---	.00	.00	.00	.00	.00	.00
3	.00					---	.00	.00	.00	.00	.00	.00
4	.00					---	.00	.00	.00	.00	.00	.00
5	.00					---	.00	.00	.00	.00	.00	.00
6	.00					---	.00	4.0	.00	3.0	.00	13
7	.00					.00	.00	5.0	.00	.00	.00	40
8	.00					.00	.00	1.6	.00	.00	.00	8.7
9	.00					.00	.00	12	.00	.00	10	50
10	.00					.00	.00	1.4	.00	.00	5.0	19
11	.00					1.9	.00	.00	.00	.00	3.0	41
12	.00					.00	.00	.00	.00	5.0	.00	22
13	.00					.00	.00	.00	.00	8.0	.00	19
14	.00					.00	.00	15	.00	2.0	116	10
15	.00					.00	.00	48	.00	.00	7.0	6.0
16	.00					.00	.00	20	.00	.00	.00	1.5
17	.00					.00	.00	16	.00	.00	.00	.00
18	.00					.00	.00	20	.00	.00	.00	.00
19	.00					4.8	.00	52	.00	.00	.00	.00
20	.00					.00	.00	19	.00	.00	.00	.00
21	.00					.00	.00	.00	5.0	10	.00	.00
22	.00					.00	.00	.00	.00	5.0	.00	.00
23	.00					.00	.00	.00	.00	.00	.00	.00
24	.00					.00	16	.00	.00	.00	.00	.00
25	.00					.00	8.0	.00	.00	.00	.00	.00
26	.00					.00	.00	.00	.00	.00	.00	.00
27	.00					4.8	.00	.00	.00	.00	.00	.00
28	.00					8.0	.00	.00	.00	.00	.00	.00
29	.00					13	.00	.00	.00	.00	.00	.00
30	9.3					.00	.00	.00	.00	.00	.00	.00
31	.00					3.8	---	.00	---	.00	.00	---
TOTAL	9.30					---	28.00	214.00	5.00	33.00	141.00	230.20
MEAN	.30					---	.93	6.90	.17	1.06	4.55	7.67
MAX	9.3					---	16	52	5.0	10	116	50
MIN	.00					---	.00	.00	.00	.00	.00	.00
AC-FT	18					---	56	424	9.9	65	280	457

NOTE: NO GAGE-HEIGHT RECORD JUNE 3 TO JULY 17.

RIO GRANDE BASIN

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 mi² (46,900 km²) (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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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 24...	1240	269	454	8.0	23.0	15.0	14	8.5	16	140
NOV 19...	1400	1590	339	7.8	10.0	9.0	32	--	18	130
DEC 17...	1147	1780	388	8.0	3.5	4.5	31	10.8	74	140
JAN 17...	1117	880	499	7.9	10.0	8.5	15	9.2	23	140
FEB 20...	1220	1150	456	7.9	10.0	8.5	22	8.4	59	140
MAR 18...	1418	1250	399	7.7	15.0	17.0	21	8.7	4	150
APR 18...	1118	2050	438	7.8	19.5	16.0	31	8.7	12	130
MAY 12...	1512	6720	274	8.2	19.5	15.0	83	8.4	40	86
JUN 18...	1218	6200	220	7.8	28.0	20.5	50	7.6	67	74
JUL 15...	1000	1010	305	7.7	27.0	23.0	54	6.4	29	96
AUG 20...	1620	303	430	8.0	27.0	27.5	35	4.6	21	130
SEP 17...	1417	397	444	8.1	26.5	24.0	60	6.4	34	140

DATE	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 (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)
OCT 24...	22	45	7.2	30	1.1	5.2	120	69	15	.5
NOV 19...	17	40	6.5	23	.9	3.4	110	56	8.2	.3
DEC 17...	30	44	7.2	23	.8	3.2	110	67	9.8	.2
JAN 17...	19	44	7.1	37	1.4	4.2	120	77	22	.5
FEB 20...	32	45	7.2	34	1.2	3.8	110	71	19	.5
MAR 18...	37	46	7.8	32	1.1	4.2	110	70	14	.4
APR 18...	12	41	7.1	35	1.3	4.0	120	78	18	.5
MAY 12...	15	27	4.6	14	.7	2.5	71	40	7.5	.3
JUN 18...	12	23	4.0	9.9	.5	2.3	62	27	3.1	.2
JUL 15...	13	30	5.2	18	.8	3.2	83	47	7.9	.5
AUG 20...	15	43	6.6	32	1.2	5.2	120	65	16	.5
SEP 17...	25	46	7.2	32	1.2	5.3	120	70	16	.5

08331000 RIO GRANDE AT ISLETA, NM
(Surveillance station)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	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 24...	25	291	271	37	.29	.32	1.200	1.100	.00
NOV 19...	20	227	225	112	.37	.29	.290	.380	.41
DEC 17...	20	244	242	79	.33	.24	.310	.330	.53
JAN 17...	22	303	287	51	.32	.30	.880	.960	1.0
FEB 20...	25	276	274	63	.71	.58	.580	.580	.92
MAR 18...	23	270	266	50	.41	.42	1.000	1.000	.50
APR 18...	22	289	279	88	.36	.34	.380	.420	.72
MAY 12...	17	170	156	263	.20	.17	.210	.210	.68
JUN 18...	16	132	123	111	.12	.09	.210	.130	.70
JUL 15...	19	192	182	95	.40	.37	.530	.550	.57
AUG 20...	26	277	269	190	1.2	.58	1.000	.820	.40
SEP 17...	26	276	279	--	.69	.74	1.100	1.100	.70

DATE	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHOPHOSPHATE DISSOL. (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 (MG/L AS C) (00689)
OCT 24...	1.5	.740	.680	90	10	--	--	4.8	.2
NOV 19...	1.1	.310	.160	50	10	--	--	9.9	1.1
DEC 17...	1.2	.270	.240	50	10	20	3.6	3.9	.3
JAN 17...	2.2	.450	.340	100	<10	--	--	4.1	.7
FEB 20...	2.2	.460	.340	90	<10	--	--	2.9	1.2
MAR 18...	1.9	.520	.420	60	20	20	4.0	2.6	1.0
APR 18...	1.5	.400	.300	110	10	--	--	3.6	1.5
MAY 12...	1.1	.360	.170	60	40	--	--	6.0	2.6
JUN 18...	1.0	.220	.120	30	20	--	6.0	6.0	1.2
JUL 15...	1.5	.470	.360	80	20	--	--	3.9	--
AUG 20...	2.6	.950	.790	110	10	50	--	5.7	2.1
SEP 17...	2.5	.920	.820	110	20	--	--	6.8	1.8

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
DEC 17...	1147	4	2	400	90	50	0	<1	12	0
MAR 18...	1418	4	5	200	100	60	0	0	0	0
AUG 20...	1620	7	4	200	90	110	0	1	0	0

RIO GRANDE BASIN

08331000 RIO GRANDE AT ISLETA, NM
(Surveillance station)

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
DEC 17...	2	<3	12	1	2400	10	8	0	160
MAR 18...	3	0	14	1	920	20	72	0	90
AUG 20...	1	<3	10	3	2000	10	7	0	190

DATE	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)	SELE- NIUM, DIS- SOLVED (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...	20	.1	.0	0	0	0	0	30	20
MAR 18...	20	.1	.0	0	0	0	0	40	20
AUG 20...	50	.2	.0	0	0	1	0	30	<3

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 AS ZN) (01029)
AUG 20...	1620	.1	7.0	36	200	2	0	1

DATE	TIME	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 AS MN) (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)
AUG 20...	0	0	0	7600	10	68	.01	8

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)
AUG 20...	1620	.00	.00	.0	.00	.00	.00	.17

DATE	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, TOTAL (UG/L) (39388)	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)
AUG 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)	NAPH- THA- LENES, POLY- CHLOR, TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
AUG 20...	.00	.00	0	.00	.00	.00	.0	.00

RIO GRANDE BASIN

08331000 RIO GRANDE AT ISLETA, NM
(Surveillance station)

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 24...	1240	1500	750
NOV 19...	1400	65	41
DEC 17...	1147	330	18
JAN 17...	1117	1	1
FEB 20...	1220	14	15
MAR 18...	1418	8	200
APR 18...	1118	29	71
MAY 12...	1512	150	190
JUN 18...	1218	74	320
JUL 15...	1000	730	70
AUG 20...	1620	1600	250
SEP 17...	1417	360	140

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 24...	1240	269	15.0	39	28	94
NOV 19...	1400	1590	9.0	641	2750	17
DEC 17...	1147	1780	4.5	1310	6300	6
JAN 17...	1117	880	8.5	226	537	17
FEB 20...	1220	1150	8.5	808	2510	8
MAR 18...	1418	560	17.0	53	80	90
APR 18...	1118	2050	16.0	254	1410	36
MAY 12...	1512	6720	15.0	3840	69700	8
JUN 18...	1218	6200	20.5	1710	28600	8
JUL 15...	1000	1010	23.0	103	281	91
AUG 20...	1620	303	27.5	122	100	79
SEP 17...	1417	397	24.0	147	158	71

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 ft³/s (57 m³/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 ft³/s (62.9 m³/s) Apr. 22, 1958; no flow many days most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	8.6	10	9.7	9.0	13	12	18	19	8.0	3.6	4.6
2	5.0	9.3	10	9.2	9.0	13	12	18	18	9.3	3.9	3.5
3	5.0	10	9.7	10	9.2	13	12	18	17	9.9	4.1	4.7
4	4.6	10	9.7	11	9.7	14	12	18	15	8.4	4.1	3.4
5	4.5	9.9	9.7	10	9.7	13	11	19	15	8.0	4.1	2.8
6	4.5	10	9.0	10	9.7	13	11	19	14	8.0	4.5	2.8
7	4.6	10	9.0	10	9.7	12	10	18	14	7.5	8.6	2.9
8	5.0	11	9.3	10	9.7	12	10	18	13	8.1	6.2	2.5
9	5.1	12	9.2	10	9.7	12	10	19	15	8.0	6.3	7.8
10	5.0	12	9.2	10	9.7	13	11	20	14	7.6	5.3	5.3
11	5.0	11	9.1	10	9.7	12	11	20	14	6.9	5.1	5.9
12	5.2	10	9.0	10	9.7	12	12	20	14	7.2	4.6	5.3
13	5.0	11	9.0	11	9.7	11	13	20	14	7.3	4.7	4.9
14	5.5	10	9.0	11	10	12	14	20	13	7.0	5.2	4.9
15	5.5	10	9.0	11	10	12	14	20	12	8.5	7.4	4.9
16	5.5	10	9.7	11	10	11	14	20	12	7.9	6.4	4.9
17	5.5	10	9.7	11	10	11	13	20	12	6.7	5.9	3.8
18	5.5	10	9.7	11	11	11	13	20	12	5.8	5.9	3.4
19	5.5	9.7	9.7	12	11	11	13	20	11	5.2	6.5	3.4
20	5.5	9.7	9.7	12	11	13	13	21	12	5.1	6.5	3.0
21	6.2	9.7	9.7	12	10	11	14	20	11	4.8	6.2	3.0
22	6.1	10	9.7	12	10	11	14	20	10	4.4	5.9	2.8
23	6.5	10	9.7	12	11	13	16	19	10	4.3	5.9	2.8
24	6.5	10	9.0	11	12	14	17	22	10	5.9	5.3	2.8
25	9.8	10	9.0	11	12	19	17	24	10	5.0	5.3	2.5
26	11	10	10	11	12	11	18	25	9.7	4.7	5.3	2.5
27	11	10	10	10	12	11	18	25	9.3	4.7	5.3	2.5
28	8.3	9.7	10	10	13	11	18	23	9.0	4.3	4.8	2.2
29	10	9.7	10	10	13	12	18	24	8.8	4.2	3.7	2.2
30	12	9.7	9.7	9.7	---	12	18	21	8.8	4.1	3.2	2.5
31	8.8	---	9.7	9.0	---	11	---	20	---	4.0	3.2	---
TOTAL	198.2	303.0	294.9	327.6	302.2	380	405	629	376.6	200.8	163.0	110.5
MEAN	6.39	10.1	9.51	10.6	10.4	12.3	13.6	20.3	12.6	6.48	5.26	3.68
MAX	12	12	10	12	13	19	18	25	19	9.9	8.6	7.8
MIN	4.5	8.6	9.0	9.0	9.0	11	10	18	8.8	4.0	3.2	2.2
AC-FT	393	601	585	650	599	754	811	1250	747	398	323	219
CAL YR 1979	TOTAL	4082.3	MEAN 11.2	MAX 26	MIN 4.1	AC-FT 8100						
WTR YR 1980	TOTAL	3694.8	MEAN 10.1	MAX 25	MIN 2.2	AC-FT 7330						

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 mi² (49,810 km²), approximately, including 2,940 mi² (7,610 km²) 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 km²) above station.

AVERAGE DISCHARGE.--19 years (water years 1937-38, 1942-58), 1,125 ft³/s (31.86 m³/s), 815,100 acre-ft/yr (1,000 hm³/yr). Includes flow of floodway, conveyance channel, and Bernardo interior drain.

15 years (water years 1959-73) 898 ft³/s (25.43 m³/s), 605,600 acre-ft/yr (747 hm³/yr), includes flow of floodway, conveyance channel, Bernardo interior drain, and lower San Juan Riverside drain prior to closure of Cochiti Dam.

7 years (water years 1974-80) 1,170 ft³/s (33.13 m³/s), 847,700 acre-ft/yr (1,050 hm³/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 ft³/s (595 m³/s) Apr. 25, 1942, gage height, 6.90 ft (2.103 m); no flow for many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,660 ft³/s (217 m³/s) May 29, gage height, 5.86 ft (1.786 m); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	1450	1560	626	890	1260	1250	4600	6420	3170	15	62
2	47	1720	1460	642	900	1170	1070	4400	6740	3220	10	56
3	42	1530	1610	696	930	1310	1040	4600	6340	3080	20	52
4	33	1460	1580	740	930	1210	892	4700	6210	3030	37	56
5	59	1440	1420	795	960	1170	756	4600	6030	3170	75	56
6	109	1580	1410	808	940	1250	598	4600	5660	3210	169	56
7	211	1570	1530	719	940	1170	560	4800	5790	3370	218	79
8	300	1870	1400	694	930	1090	560	5100	6090	2920	196	119
9	207	2010	1330	766	940	1080	560	5600	5910	2510	184	283
10	269	2020	1420	811	920	1030	657	5400	6530	2520	228	1180
11	364	1910	1380	830	950	926	700	5400	6260	2450	178	1670
12	358	1980	1510	890	900	779	905	5800	5950	2500	214	1270
13	308	2040	1380	950	920	815	1460	5800	6000	1770	354	1060
14	184	1640	1270	870	880	895	1540	5600	6180	1440	1030	719
15	158	1870	1370	900	920	808	1540	6400	5760	1100	2050	554
16	156	1720	1540	960	1000	622	1140	6460	5790	697	1240	555
17	94	1680	1620	930	1090	780	1010	5900	5370	394	1010	368
18	72	1690	1710	940	1160	639	828	5450	5340	252	762	112
19	51	1550	1640	950	1050	568	1370	5590	5180	94	765	96
20	130	1550	1680	950	1100	638	1880	6290	5200	42	381	86
21	133	1500	1640	930	1130	671	2040	6160	4900	34	212	28
22	150	1500	1590	950	1150	637	2200	5600	4710	20	156	18
23	151	1610	1510	950	1160	594	2710	5880	4220	24	119	16
24	138	1620	1540	880	1100	617	2910	6340	4440	78	101	.00
25	91	1580	1470	900	1140	617	3620	6600	4780	57	105	.00
26	91	1680	1460	900	1140	792	3620	6610	4250	57	78	.00
27	56	1780	1590	920	1040	657	4150	6600	3660	75	86	.00
28	98	1600	1590	890	1130	780	4570	6550	3540	49	80	.00
29	156	1650	1320	820	1400	930	5070	7260	3210	43	81	.00
30	457	1680	1030	860	---	880	4900	6870	3180	33	66	.00
31	921	---	700	840	---	637	---	6570	---	20	64	---
TOTAL	5632	50480	45260	26307	29640	27022	56106	178130	159640	41429	10284	8551.00
MEAN	182	1683	1460	849	1022	872	1870	5746	5321	1336	332	285
MAX	921	2040	1710	960	1400	1310	5070	7260	6740	3370	2050	1670
MIN	33	1440	700	626	880	568	560	4400	3180	20	10	.00
AC-FT	11170	100100	89770	52180	58790	53600	111300	353300	316600	82170	20400	16960
(+)	23460	105800	95500	58220	64430	64280	122000	365800	327500	94480	32090	27480

CAL YR 1979 TOTAL 826336.30 MEAN 2264 MAX 7730 MIN .00 AC-FT 1639000 (+) MEAN 2437 AC-FT 1769000
WTR YR 1980 TOTAL 638481.00 MEAN 1744 MAX 7260 MIN .00 AC-FT 1266000 (+) MEAN 1902 AC-FT 1381000

(+) 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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (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												
04...	1345	42	770	8.5	17.0	240	36	73	13	75	2.1	5.8
NOV												
07...	1015	1650	436	8.1	10.5	150	28	47	7.5	30	1.1	4.3
DEC												
07...	1045	1620	421	7.7	2.0	150	34	49	7.7	31	1.1	3.7
20...	1200	1740	433	7.8	1.0	160	48	50	8.1	32	1.1	3.6
JAN												
08...	1130	622	524	7.5	3.0	170	27	53	8.5	41	1.4	4.6
25...	1230	481	517	7.7	7.0	160	26	49	8.1	45	1.6	4.6
FEB												
06...	1300	1040	491	7.9	9.0	150	23	48	8.0	42	1.5	4.4
26...	1015	1210	495	7.9	8.0	160	25	49	8.0	41	1.4	3.9
MAR												
06...	1310	1300	497	7.6	11.0	160	25	49	7.9	44	1.5	4.5
APR												
07...	1245	547	549	8.3	16.0	170	31	54	8.8	48	1.6	5.1
29...	1300	4650	359	8.9	16.0	130	39	40	7.3	28	1.1	3.6
JUN												
05...	1115	6150	224	8.9	18.0	75	21	23	4.3	14	.7	2.6
19...	1030	5410	238	7.8	21.0	88	7	28	4.5	13	.6	2.5
JUL												
17...	0930	394	366	9.5	25.0	130	5	39	6.8	28	1.1	4.1
AUG												
06...	0950	183	659	8.3	25.0	170	34	55	8.9	37	1.2	4.9
22...	1045	158	513	8.5	22.0	210	30	66	11	61	1.8	5.9

DATE	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHOPH DIS- SOLVED (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT											
04...	200	160	34	.6	30	--	512	.00	--	180	<10
NOV											
07...	120	71	12	.4	23	--	270	.58	.280	90	<10
DEC											
07...	120	75	14	.4	23	--	279	.66	.290	80	<10
20...	110	87	14	.4	23	--	287	.57	.280	80	<10
JAN											
08...	140	67	24	.4	25	--	313	1.1	.550	110	<10
25...	130	91	23	.5	24	--	328	.94	.330	110	<10
FEB											
06...	130	88	21	.5	24	--	319	1.0	.520	100	<10
26...	130	86	25	.5	25	--	321	.96	.480	120	<10
MAR											
06...	130	83	24	.5	26	--	322	1.1	.320	130	<10
APR											
07...	140	110	23	.5	25	--	362	.79	.410	140	<10
29...	91	76	11	.3	15	--	236	.00	.100	80	10
JUN											
05...	54	35	8.4	.8	17	--	138	.03	.080	40	<10
19...	81	34	2.9	.2	18	--	153	.25	.170	30	<10
JUL											
17...	120	63	11	.6	21	--	246	.00	.170	70	<10
AUG											
06...	140	88	14	.5	24	--	317	--	--	90	<10
22...	180	120	25	.6	27	390	425	--	--	70	<10

RIO GRANDE BASIN
08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued
WATER-QUALITY RECORDS

211

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (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									
22...	0700	135	8.0	250	91	62	69	--	84
NOV									
07...	1015	1650	10.5	942	4200	13	16	--	22
DEC									
07...	1045	1620	2.0	463	2030	24	25	--	31
20...	1200	1740	1.0	612	2880	14	15	16	21
JAN									
08...	1130	622	3.0	117	196	--	--	--	--
25...	1230	481	7.0	152	197	24	27	30	37
FEB									
06...	1300	1040	9.0	134	376	28	29	32	39
26...	1015	1210	8.0	145	474	51	52	--	58
MAR									
06...	1310	1300	11.0	259	909	35	39	--	47
APR									
07...	1245	547	16.0	103	152	36	41	48	57
29...	1300	4650	16.0	335	4210	51	60	--	65
JUN									
05...	1115	6150	18.0	286	4750	36	40	--	49
19...	1030	5410	21.0	320	4670	--	--	--	--
JUL									
17...	0930	394	25.0	115	122	--	--	--	--
AUG									
06...	0950	183	25.0	112	55	--	--	--	--
10...	1130	291	22.0	13800	10800	53	71	--	99
19...	1830	607	24.0	1760	2880	42	58	--	87
22...	1045	158	22.0	246	105	34	41	--	60
SEP									
11...	1700	1480	21.0	4200	16800	47	66	--	86

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. FALL DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70334)
OCT									
22...	--	--	--	--	--	97	99	100	--
NOV									
07...	--	49	75	99	100	--	--	--	--
DEC									
07...	--	61	86	100	--	--	--	--	--
20...	28	46	83	100	--	--	--	--	--
JAN									
08...	--	--	--	--	--	58	80	99	100
25...	45	--	--	--	--	64	86	99	100
FEB									
06...	48	--	--	--	--	66	87	100	--
26...	--	--	--	--	--	81	91	99	100
MAR									
06...	--	--	--	--	--	73	89	100	--
APR									
07...	66	--	--	--	--	74	85	98	100
29...	--	--	--	--	--	98	99	100	--
JUN									
05...	--	--	--	--	--	80	96	100	--
19...	--	--	--	--	--	64	93	100	--
JUL									
17...	--	--	--	--	--	82	90	100	--
AUG									
06...	--	--	--	--	--	97	99	100	--
10...	--	100	--	--	--	--	--	--	--
19...	--	100	--	--	--	--	--	--	--
22...	--	--	--	--	--	88	96	99	100
SEP									
11...	--	--	--	--	--	98	100	--	--

RIO GRANDE BASIN

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (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)
NOV							
07...	1015	1650	942	4200	63	93	100
DEC							
07...	1045	1620	463	2030	2	19	96
20...	1200	1740	612	2880	2	21	95
JAN							
25...	1230	481	152	197	0	1	63
FEB							
06...	1300	1040	134	376	2	42	97
26...	1015	1210	145	474	1	2	50
MAR							
06...	1310	1300	259	909	1	8	69
APR							
07...	1245	547	103	152	1	8	83
29...	1300	4650	335	4210	62	95	100
JUN							
05...	1115	6150	286	4750	44	92	100
19...	1030	5410	320	4670	12	68	99
JUL							
17...	0930	394	115	122	1	11	85
AUG							
06...	0950	183	112	55	3	11	96
22...	1045	158	246	105	11	47	98

DATE	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)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
NOV							
07...	--	--	--	--	--	--	--
DEC							
07...	100	--	--	--	--	--	--
20...	100	--	--	--	--	--	--
JAN							
25...	100	--	--	--	--	--	--
FEB							
06...	100	--	--	--	--	--	--
26...	87	--	94	96	97	98	100
MAR							
06...	91	100	--	--	--	--	--
APR							
07...	100	--	--	--	--	--	--
29...	--	--	--	--	--	--	--
JUN							
05...	--	--	--	--	--	--	--
19...	100	--	--	--	--	--	--
JUL							
17...	100	--	--	--	--	--	--
AUG							
06...	100	--	--	--	--	--	--
22...	100	--	--	--	--	--	--

RIO GRANDE BASIN
08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued
WATER-QUALITY RECORDS

213

TOTAL SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SEDI- MENT DISCH. TOTAL, SUSP.+ BEDLOAD (T/DAY) (80156)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOC- ITY, MEAN (FPS) (00055)
DEC 07...	1045	1620	2.0	463	2030	3850	345	1.3	3.6
20...	1200	1740	1.0	612	2880	6180	450	1.0	3.7
JAN 25...	1230	481	7.0	152	197	557	215	1.0	2.2
FEB 26...	1015	1210	8.0	145	474	833	315	1.8	2.1
MAR 06...	1310	1300	11.0	259	909	1400	505	1.3	2.0
APR 07...	1245	547	16.0	103	152	232	210	1.5	1.8
JUN 19...	1030	5410	21.0	320	4670	9190	336	3.1	5.1
JUL 17...	0930	394	25.0	115	122	217	160	1.3	1.9
AUG 06...	0950	183	25.0	112	55	93	111	.99	1.7
22...	1045	158	22.0	246	105	155	120	.94	1.4

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	695	443	436	520	430	466	512	379	308	294	677	671
2	679	435	435	510	475	500	495	376	310	292	781	676
3	657	444	428	504	447	475	512	355	291	294	569	658
4	667	430	402	515	468	509	514	355	261	302	660	633
5	622	428	411	468	442	506	544	348	268	305	619	670
6	591	430	415	432	535	461	587	347	272	311	596	695
7	556	432	424	488	557	519	568	341	268	296	595	654
8	513	435	410	450	560	505	587	338	286	240	581	639
9	528	418	434	472	522	485	575	338	270	266	598	546
10	507	464	405	444	552	480	565	334	270	272	683	515
11	512	500	421	492	526	492	572	333	265	285	672	554
12	492	479	428	437	534	517	557	330	257	293	581	571
13	512	445	445	438	531	535	543	314	264	312	577	545
14	481	464	434	450	561	520	511	329	259	335	544	612
15	514	430	412	479	543	528	503	336	255	371	500	723
16	527	400	427	478	546	552	505	336	258	372	528	635
17	555	436	437	435	506	526	479	339	253	388	570	656
18	587	420	395	482	540	514	514	333	255	415	589	658
19	568	410	405	466	553	536	538	338	251	461	660	652
20	532	430	418	489	517	546	495	348	302	558	716	663
21	559	448	437	481	530	512	492	353	281	565	784	677
22	600	430	432	462	568	532	479	348	279	569	695	791
23	555	446	414	451	523	545	473	349	275	625	751	758
24	583	422	421	474	545	535	481	336	282	472	818	---
25	582	427	415	455	555	552	440	337	284	519	813	---
26	588	409	404	464	555	519	435	333	291	500	835	---
27	625	426	429	451	530	524	420	325	280	493	865	---
28	635	425	410	475	546	518	407	316	288	543	848	---
29	649	444	418	451	485	524	402	317	292	576	830	---
30	565	449	421	444	---	512	387	308	293	602	842	---
31	462	---	462	456	---	546	---	310	---	579	680	---
MEAN	571	437	422	468	524	516	503	338	276	410	679	646
WTR YR 1980		MEAN	479	MAX	865	MIN	240					

RIO GRANDE BASIN
08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued
WATER-QUALITY RECORDS

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	7.5	1.5	6.0	5.0	13.0	3.0	11.0	18.0	17.0	28.0	25.0
2	---	7.0	6.0	3.0	8.0	10.0	7.0	10.0	13.0	18.0	27.0	25.0
3	15.0	6.0	2.0	3.0	11.0	8.0	15.0	14.0	24.0	16.0	24.0	26.0
4	14.0	12.0	3.0	1.5	4.0	8.0	8.0	16.0	14.0	18.0	23.0	22.0
5	14.0	7.0	4.0	6.0	5.0	6.0	10.0	16.0	16.0	23.0	25.0	21.0
6	14.5	8.0	4.5	5.0	5.0	10.0	16.0	14.0	14.0	23.0	25.0	22.0
7	20.0	9.0	3.0	4.0	7.0	10.0	9.0	17.0	14.0	18.0	27.0	21.0
8	13.0	11.0	10.0	4.0	4.0	6.0	8.0	13.0	22.0	17.0	25.0	26.0
9	14.0	9.0	9.0	4.0	4.0	16.0	8.0	13.0	15.0	17.0	19.0	17.0
10	11.0	12.0	3.5	5.0	7.0	7.0	9.0	13.0	18.0	19.0	22.0	18.0
11	13.0	11.0	5.0	7.0	4.0	9.0	14.0	18.0	21.0	18.0	23.0	21.0
12	14.0	11.0	6.0	6.0	3.5	8.0	8.0	16.0	15.0	19.0	24.0	21.0
13	18.0	5.0	6.5	9.0	6.0	5.0	9.0	10.0	13.0	21.0	25.0	15.0
14	19.0	5.0	1.5	6.0	7.0	16.0	8.0	17.0	17.0	17.0	19.0	23.0
15	13.0	6.5	7.0	8.0	13.0	16.0	8.0	11.0	18.0	16.0	22.0	24.0
16	12.0	5.0	6.0	5.0	14.0	15.0	12.0	10.0	19.0	17.0	18.0	23.0
17	13.0	7.0	1.0	5.0	9.0	5.0	11.0	16.0	19.0	19.0	20.0	23.0
18	12.0	12.0	.5	6.0	8.0	5.0	12.0	15.0	18.0	19.0	23.0	24.0
19	13.0	6.5	2.0	7.0	8.0	6.0	13.0	14.0	17.0	26.0	24.0	25.0
20	14.0	6.0	1.5	8.0	7.0	7.0	18.0	14.0	18.0	27.0	25.0	25.0
21	13.5	5.0	3.5	4.0	12.0	8.0	16.0	16.0	16.0	18.0	25.0	24.0
22	8.0	5.0	7.0	5.0	9.0	12.0	12.0	17.0	20.0	16.0	24.0	22.0
23	9.0	5.5	5.5	3.0	10.0	12.0	13.0	17.0	16.0	16.0	17.0	23.0
24	9.0	7.0	7.0	3.0	11.0	8.0	9.0	16.0	18.0	16.0	19.0	---
25	19.0	7.0	3.0	3.0	5.0	13.0	14.0	15.0	20.0	18.0	25.0	---
26	10.0	3.5	8.0	10.0	6.0	8.0	9.0	13.0	18.0	19.0	21.0	---
27	9.0	6.0	7.0	8.0	7.0	8.0	15.0	13.0	16.0	21.0	24.0	---
28	18.0	3.0	5.0	4.0	8.0	8.0	13.0	16.0	17.0	22.0	25.0	---
29	9.0	1.0	3.0	5.0	11.0	8.0	14.0	14.0	18.0	25.0	25.0	---
30	9.0	4.0	6.0	7.0	---	11.0	12.0	19.0	17.0	26.0	16.0	---
31	6.5	---	2.0	7.0	---	7.0	---	20.0	---	27.0	24.0	---
MEAN	13.0	7.0	4.5	5.5	7.5	9.5	11.0	14.5	17.5	19.5	23.0	22.5
WTR YR 1980	MEAN	12.5	MAX	28.0	MIN	.5						

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
1	57	5.8	854	3340	330	1390	166	281	140	365	235	926
2	87	11	765	3550	295	1160	105	182	130	369	205	747
3	84	9.5	650	2690	280	1220	95	179	155	452	214	820
4	69	6.1	573	2260	305	1300	70	140	133	409	269	988
5	82	13	415	1610	249	955	113	243	169	511	225	790
6	78	23	598	2550	265	1010	117	255	137	399	209	739
7	111	63	663	2810	362	1500	89	173	106	306	200	659
8	137	111	463	2340	268	1010	93	174	142	414	191	614
9	116	65	450	2440	265	952	79	163	132	399	184	596
10	233	169	352	1920	247	947	98	215	113	326	163	506
11	382	375	347	1790	273	1020	105	249	87	258	174	435
12	204	197	1290	6900	223	909	92	246	132	410	148	311
13	222	185	598	3290	340	1270	137	411	119	325	170	374
14	290	144	422	1870	231	792	121	369	116	323	176	425
15	119	51	500	2520	226	836	104	343	138	391	141	308
16	112	47	415	1930	235	977	125	449	163	493	145	244
17	92	23	313	1590	280	1220	170	565	143	498	182	383
18	132	26	263	1340	282	1300	156	497	120	376	100	173
19	105	14	326	1780	453	2010	114	369	1910	6030	107	164
20	167	59	271	1470	440	2000	111	372	1350	4370	128	220
21	137	49	322	1640	363	1610	138	440	209	666	118	214
22	243	98	395	1820	313	1340	137	425	260	807	136	234
23	196	80	350	1520	289	1180	237	729	245	767	155	249
24	228	85	291	1270	276	1150	212	601	141	445	99	165
25	111	27	283	1210	286	1140	158	469	162	555	114	190
26	169	42	239	1080	190	749	139	413	243	814	155	331
27	97	15	253	1220	206	884	165	463	238	668	93	165
28	158	42	360	1560	303	1300	123	323	138	421	139	293
29	108	45	373	1660	210	748	126	328	195	737	191	480
30	363	448	285	1290	183	509	133	370	---	---	157	373
31	540	1340	---	---	161	304	176	462	---	---	263	648
TOTAL	---	3868.4	---	64260	---	34692	---	10898	---	23304	---	13764

WATER-QUALITY RECORDS

DAY	MEAN		MEAN		MEAN		MEAN		MEAN		MEAN	
	CONCEN- TRATION (MG/L)	LOADS (T/DAY)	CONCEN- TRATION (MG/L)	LOADS (T/DAY)	CONCEN- TRATION (MG/L)	LOADS (T/DAY)	CONCEN- TRATION (MG/L)	LOADS (T/DAY)	CONCEN- TRATION (MG/L)	LOADS (T/DAY)	CONCEN- TRATION (MG/L)	LOADS (T/DAY)
		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER
1	445	1500	433	4590	355	6150	144	1230	97	3.9	340	57
2	151	436	371	3760	307	5590	160	1390	71	1.9	232	35
3	131	368	367	4030	368	6300	177	1470	68	3.7	235	33
4	129	311	275	3050	265	4440	205	1680	128	13	241	36
5	116	237	280	3050	289	4710	225	1930	180	36	190	29
6	87	140	314	3040	283	4320	154	1330	659	301	190	29
7	93	141	370	3650	205	3200	136	1240	852	501	233	57
8	67	101	338	4100	245	4030	123	970	564	298	348	112
9	84	127	412	5320	315	5030	125	847	171	85	1600	1550
10	112	199	452	7270	628	11100	144	980	8440	5850	3080	9810
11	120	227	343	5870	328	5540	131	867	1790	860	3850	17400
12	235	574	655	11800	229	3680	135	911	1260	728	5050	17300
13	653	2570	620	11900	306	4960	114	545	1080	1030	2920	8360
14	347	1440	369	6570	300	5010	150	583	3290	14800	1910	3710
15	273	1140	308	5460	290	4510	367	1090	6810	42600	1150	1720
16	197	606	488	8510	170	2660	145	273	1900	6360	541	811
17	154	420	506	8060	257	3730	117	124	1120	3050	383	381
18	101	226	359	5280	210	3030	117	80	800	1650	246	74
19	268	991	374	5640	260	3640	110	28	3850	8700	201	52
20	327	1660	364	6180	199	2790	90	10	352	362	180	42
21	336	1850	344	5720	237	3140	80	7.3	253	145	122	9.2
22	356	2110	242	3660	203	2580	90	4.9	242	102	114	5.5
23	932	6820	300	4760	176	2010	91	5.9	199	64	82	3.5
24	1040	8170	263	4500	202	2420	161	34	175	48	0	.00
25	854	8350	360	6420	156	2010	1780	274	175	50	0	.00
26	500	4890	327	5840	161	1850	560	86	228	48	0	.00
27	539	6040	338	6020	135	1330	365	74	191	44	0	.00
28	468	5770	435	7690	153	1460	240	32	271	59	0	.00
29	630	8620	490	9600	150	1300	1750	203	490	107	0	.00
30	483	6020	655	12100	145	1240	99	8.8	225	40	0	.00
31	---	---	403	7150	---	---	1470	79	407	70	---	---
TOTAL	---	72054	---	190590	---	113760	---	18386.9	---	88010.5	---	61616.20
TOTAL LOAD FOR YEAR:	---	695204.00	---	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 ft³/s (5.30 m³/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 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	58	24	24	26	28	50	34	63	87	98	112
2	61	23	24	24	26	29	48	46	56	92	95	104
3	59	22	25	26	26	29	29	45	44	87	118	88
4	73	25	26	28	25	28	34	40	45	95	130	84
5	94	28	27	27	25	28	30	46	38	99	129	83
6	96	29	27	26	25	28	29	45	36	102	125	86
7	96	29	27	25	25	28	31	30	38	109	123	83
8	91	29	27	25	26	27	29	27	31	103	128	97
9	90	28	27	24	26	27	26	42	38	103	122	84
10	93	28	28	25	26	28	36	32	72	99	131	29
11	100	28	27	25	26	28	35	40	72	93	125	28
12	98	28	27	26	26	29	52	48	72	97	129	25
13	98	28	27	26	26	42	52	38	57	110	128	25
14	100	28	26	26	26	27	57	34	50	109	115	26
15	93	28	26	26	26	35	67	42	44	104	62	27
16	107	27	26	26	26	35	62	55	40	110	43	33
17	98	27	26	26	27	28	54	53	28	111	45	31
18	82	27	25	26	27	33	60	53	44	102	44	72
19	89	27	24	26	27	28	61	52	46	102	47	81
20	76	27	24	27	27	34	59	42	38	99	51	96
21	77	27	24	27	27	49	53	50	44	87	47	84
22	87	27	25	27	27	48	52	53	47	86	46	91
23	91	27	26	27	27	31	61	44	32	77	35	87
24	88	27	26	27	27	39	60	50	42	100	32	86
25	89	27	26	27	27	44	63	65	35	116	35	83
26	84	27	26	27	28	36	52	60	56	118	41	82
27	83	26	27	26	27	50	56	66	90	140	38	78
28	80	26	27	26	27	49	62	62	87	144	30	80
29	69	25	26	26	27	55	50	55	98	123	40	86
30	64	24	25	26	---	55	42	64	95	108	94	86
31	72	---	25	26	---	44	---	69	---	90	111	---
TOTAL	2651	837	803	806	764	1099	1452	1482	1578	3202	2537	2137
MEAN	85.5	27.9	25.9	26.0	26.3	35.5	48.4	47.8	52.6	103	81.8	71.2
MAX	107	58	28	28	28	55	67	69	98	144	131	112
MIN	59	22	24	24	25	27	26	27	28	77	30	25
AC-FT	5260	1660	1590	1600	1520	2180	2880	2940	3130	6350	5030	4240
CAL YR 1979	TOTAL	20828	MEAN 57.1	MAX 129	MIN 20	AC-FT 41310						
WTR YR 1980	TOTAL	19348	MEAN 52.9	MAX 144	MIN 22	AC-FT 38380						

08332700 SAN PABLO CREEK NEAR CUBA, NM

LOCATION.--Lat 35°56'55", long 107°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 mi² (33.2 km²).

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 OF RECORD.--Maximum discharge 2,360 ft³/s (66.8 m³/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.--1979 water year: Maximum discharge, 40 ft³/s (1.13 m³/s) Apr. 22, gage-height, 3.09 ft (0.942 m); no flow at times.

1980 water year: Maximum discharge, 23 ft³/s (0.65 m³/s) May 18, gage-height, 2.82 ft (0.860 m); minimum daily, 0.20 ft³/s (0.006 m³/s) at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	7.2	2.1	.10	.10	.20
2							---	7.1	2.2	.10	.12	.15
3							---	6.1	1.9	.09	.10	.20
4							---	5.3	.72	.10	.12	.15
5							---	6.5	.38	.09	.12	.20
6							---	7.8	.37	.09	.15	.15
7							---	6.6	1.1	.09	.15	.15
8							---	5.8	1.3	.09	.15	.20
9							---	7.6	.25	.08	.15	.20
10							---	5.9	.13	.07	.18	.20
11							---	5.1	.16	.07	.20	.20
12							---	6.0	.10	.07	.15	.20
13							---	8.2	.13	.10	.18	.20
14							---	9.7	.16	.10	.15	.20
15							---	8.1	.20	.08	.12	.15
16							---	6.3	.16	.10	.15	.15
17							---	5.6	.13	.12	.15	.20
18							---	4.8	.10	.08	.12	.20
19							22	4.0	.08	.08	.15	.20
20							22	3.9	.10	.12	.12	.20
21							25	5.5	.08	.10	.12	.15
22							28	3.9	.08	.08	.15	.20
23							33	2.8	.09	.06	.20	.20
24							28	2.7	.08	.08	.20	.15
25							20	2.7	.08	.10	.20	.10
26							17	2.6	.08	.06	.15	.15
27							13	2.8	.09	.08	.15	.15
28							11	3.2	.08	.10	.20	.20
29							11	3.1	.08	.08	.20	.15
30							9.7	2.7	.08	.08	.15	.15
31							---	2.2	---	.08	.20	---
TOTAL							---	161.8	12.59	2.72	4.75	5.30
MEAN							---	5.22	.42	.088	.15	.18
MAX							---	9.7	2.2	.12	.20	.20
MIN							---	2.2	.08	.06	.10	.10
AC-FT							---	321	25	5.4	9.4	11

RIO GRANDE BASIN

08332700 SAN PABLO CREEK NEAR CUBA, NM -- Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.15	.00	.00	.00	.15	.80	1.0	.40	.30	.30	.40
2	.11	.12	.00	.00	.00	.20	.70	1.0	.35	.30	.35	.40
3	.12	.10	.00	.00	.00	.25	.62	2.5	.56	.30	.30	.40
4	.12	.15	.00	.00	.00	.20	.95	5.4	.56	.30	.30	.40
5	.11	.12	.00	.00	.00	.20	.70	7.0	.95	.30	.30	.40
6	.11	.10	.00	.00	.00	.20	.62	8.3	1.4	.30	.30	.48
7	.13	.15	.00	.00	.00	.23	.56	10	.56	.35	.30	.48
8	.15	.20	.00	.00	.00	.26	.70	15	.35	.35	.35	.48
9	.11	.20	.00	.00	.00	.32	.62	16	.30	.35	.35	.62
10	.12	.20	.00	.00	.00	.32	.56	17	.30	.30	.30	.56
11	.12	.15	.00	.00	.00	.28	.56	20	.30	.35	.30	.56
12	.10	.12	.00	.00	.08	.23	.62	18	.30	.30	.30	.48
13	.11	.10	.00	.08	.10	.30	.70	18	.30	.30	.35	.48
14	.12	.12	.00	.00	.30	.26	.60	20	.25	.35	.40	.40
15	.12	.10	.00	.02	1.7	.24	.56	21	.25	.35	.40	.40
16	.11	.10	.00	.00	1.0	.23	.62	18	.20	.35	.35	.40
17	.10	.12	.00	.00	.95	.40	.62	19	.25	.35	.35	.35
18	.12	.12	.00	.00	1.0	.37	.70	18	.20	.35	.35	.35
19	.13	.10	.00	.00	1.8	.88	.70	14	.25	.35	.35	.40
20	.10	.12	.00	.00	3.1	.56	.62	12	.30	.35	.35	.48
21	.11	.10	.00	.00	1.8	.72	.56	10	.30	.35	.35	.48
22	.10	.10	.00	.00	1.0	.60	.60	9.6	.25	.35	.35	.48
23	.10	.12	.00	.11	.80	.48	.70	8.4	.25	.48	.35	.48
24	.10	.10	.00	.04	.56	.56	.70	5.2	.25	.35	.40	.48
25	.10	.10	.00	.02	.35	.60	.70	.35	.20	.30	.40	.48
26	.11	.12	.00	.00	.30	.56	.70	.40	.20	.30	.40	.48
27	.12	.12	.00	.00	.25	.48	.62	.40	.20	.30	.40	.56
28	.12	.10	.00	.00	.20	.56	.70	.40	.20	.30	.35	.56
29	.15	.00	.00	.00	.20	.48	.70	.40	.25	.30	.40	.48
30	.16	.00	.00	.00	---	.62	.70	.40	.25	.30	.40	.48
31	.16	---	.00	.00	---	.70	---	.35	---	.30	.35	---
TOTAL	3.64	3.50	.00	.27	15.49	12.44	19.81	297.10	10.68	10.18	10.80	13.88
MEAN	.12	.12	.000	.009	.53	.40	.66	9.58	.36	.33	.35	.46
MAX	.16	.20	.00	.11	3.1	.88	.95	21	1.4	.48	.40	.62
MIN	.10	.00	.00	.00	.00	.15	.56	.35	.20	.30	.30	.35
AC-FT	7.2	6.9	.00	.5	31	25	39	589	21	20	21	28

WTR YR 1980 TOTAL 397.79 MEAN 1.09 MAX 21 MIN .00 AC-FT 789

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS 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)
MAR 06...	1310	.15	1950	7.9	--	11.5	640	560	130	76	180	3.1
APR 03...	1422	.21	2200	7.9	8.5	16.5	700	590	160	73	200	3.3
16...	1200	.62	525	7.8	--	--	--	--	--	--	--	--

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
MAR 06...	3.3	96	0	79	870	30	1.3	11	1570	1350	.54
APR 03...	4.3	140	0	115	930	33	1.2	12	1700	1490	.96
16...	--	--	0	630	--	--	--	--	--	--	--

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)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P) (00671)	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 (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
MAR 06...	.56	.070	.85	1.5	.160	.020	10	<1	5.2	--	--
APR 03...	.96	.000	1.9	2.9	--	.020	30	10	6.8	4.4	--
16...	--	--	--	--	--	--	40	0	--	--	40

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
MAR 06...	1310	2	1	200	50	0	<1	10	0
APR 03...	1422	7	1	600	200	0	0	30	0
16...	1200	--	--	--	--	--	--	--	--

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)
MAR 06...	3	<3	27	4	5000	10	13	6	160
APR 03...	16	1	50	3	37000	30	34	6	840
16...	--	--	--	--	140000	40	--	--	2900

RIO GRANDE BASIN
08332700 SAN PABLO CREEK NEAR CUBA, NM
WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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)	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)
MAR 06...	<1	.1	.0	4	3	0	0	40	7
APR 03...	10	.2	.0	5	4	0	0	200	10
16...	0	--	--	--	--	--	--	--	--

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

		STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (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)	
DATE	TIME								
MAR									
06...	1310	.15	11.5	442	87	--	--	--	
APR									
03...	1422	.21	16.5	2570	94	--	--	--	
16...	1200	.62	--	11600	80	--	--	--	
SEP									
18...	1550	.14	--	--	--	42	85	94	
18...	1555	.14	--	--	--	28	36	42	
18...	1600	.14	--	--	--	86	96	99	
		BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. FALL DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. FALL DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. FALL DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. FALL DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. FALL DIAM. % FINER THAN 32.0 MM (80173)	SAMPLE SOURCE (72005)
DATE	TIME								
MAR									
06...	--	--	--	--	--	--	--	--	--
APR									
03...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	40
SEP									
18...	96	98	99	99	100	--	--	--	--
18...	45	47	49	57	69	86	100	--	--
18...	100	--	--	--	--	--	--	--	--

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 mi² (1,090 km²), 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 km²) above station in past years, but present diversion negligible. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--29 years, 13.4 ft³/s (0.379 m³/s), 9,710 acre-ft/yr (12.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,940 ft³/s (197 m³/s) July 29, 1967, gage height, 13.53 ft (4.124 m), from rating curve extended above 1,300 ft³/s (37 m³/s) on basis of slope-area measurements at gage heights 7.75 ft (2.362 m) and 10.60 ft (3.231 m); no flow for many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1943, probably exceeded 5,000 ft³/s (140 m³/s) based on records for stations above and below.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 398 ft³/s (11.3 m³/s) at 0330 hours Sept. 7, gage height, 3.41 ft (1.039 m), no peak above base of 1,000 ft³/s (28 m³/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	1.8	1.0	1.0	10	4.6	30	82	.00	.00	.00
2	.00	.00	1.8	.70	1.0	9.0	4.6	40	78	17	.00	.00
3	.00	.00	2.0	.70	1.0	8.0	3.2	40	75	1.0	.00	.00
4	.00	.00	1.4	.50	1.0	8.0	5.0	50	65	1.0	.00	.00
5	.00	.00	1.0	.50	1.0	8.8	7.2	50	60	.50	.00	.00
6	.00	.00	1.0	.50	3.2	7.2	7.6	60	60	.50	.00	.00
7	.00	1.0	.40	.40	8.8	5.6	8.4	80	55	.30	.00	27
8	.00	3.2	.40	.60	7.6	4.6	8.8	111	40	.00	.00	7.2
9	.00	5.5	.60	.80	4.0	3.5	10	60	86	.00	.00	36
10	.00	5.3	1.0	.00	3.0	2.5	12	50	80	.00	.00	5.0
11	.00	2.0	.60	.00	2.0	1.5	13	50	76	.00	.00	10
12	.00	1.0	.40	.00	2.8	1.0	19	40	69	.00	.00	.00
13	.00	.08	1.2	.00	3.9	1.0	23	40	61	.00	.00	.00
14	.00	.05	2.2	.00	10	.50	25	30	60	.00	.00	.00
15	.00	.20	2.5	20	80	.40	25	50	59	.00	.00	.00
16	.00	.25	2.8	32	84	.40	26	98	40	.00	.00	.00
17	.00	.50	3.2	20	17	.05	27	70	30	.00	.00	.00
18	.03	1.0	2.5	15	8.0	.10	33	70	20	.00	.00	.00
19	.00	1.0	1.0	15	55	.40	37	80	10	.00	.00	.00
20	.00	.40	1.6	7.0	49	.60	46	84	5.0	.00	.00	.00
21	8.6	.60	3.2	5.0	42	1.6	54	105	3.0	.00	.00	.00
22	.50	.40	1.8	4.0	30	.60	63	142	1.0	2.1	.00	.00
23	.40	.80	1.8	3.0	25	.40	65	154	.00	1.0	.00	.00
24	.05	1.4	2.2	3.0	20	3.2	67	158	.00	.95	7.3	.00
25	.00	1.0	2.5	3.0	15	3.9	73	146	.00	.00	10	.00
26	.00	.60	2.5	1.0	15	3.9	50	128	.00	.00	2.0	.00
27	.00	.20	3.9	1.0	10	4.6	50	112	.00	.00	.00	.00
28	.00	.40	1.8	1.0	10	6.0	40	110	.00	.00	.00	.00
29	.00	.80	1.4	1.0	10	5.3	40	98	.00	.00	.00	.00
30	.00	1.8	2.0	1.0	---	5.3	30	98	.00	.00	.00	.00
31	.00	---	3.2	1.0	---	4.2	---	99	---	.00	.00	---
TOTAL	9.58	29.48	55.70	138.70	520.3	112.15	877.4	2533	1115.00	24.35	19.30	85.20
MEAN	.31	.98	1.80	4.47	17.9	3.62	29.2	81.7	37.2	.79	.62	2.84
MAX	8.6	5.5	3.9	32	84	10	73	158	86	17	10	36
MIN	.00	.00	.40	.00	1.0	.05	3.2	30	.00	.00	.00	.00
AC-FT	19	58	110	275	1030	222	1740	5020	2210	48	38	169
CAL YR 1979	TOTAL	8424.96	MEAN 23.1	MAX 327	MIN .00	AC-FT 16710						
WTR YR 1980	TOTAL	5520.16	MEAN 15.1	MAX 158	MIN .00	AC-FT 10950						

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 mi² (52.6 km²).

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, 47 ft³/s (1.33 m³/s) July 21, 1980, gage height 4.09 ft (1.247 m), from rating curve extended above 2.0 ft³/s (0.06 m³/s) by step-backwater analysis; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 47 ft³/s (1.33 m³/s) July 21, gage height, 4.09 ft (1.247 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.56	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.15	.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	.08	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	3.8	.00	.00	.00	.00	.00	.00	.00	.00	.69	.00
9	.00	.41	.00	.00	.00	.00	.00	.00	.00	.00	1.2	.00
10	.00	.41	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06
11	.00	.26	.00	.26	.00	.00	.00	.00	.00	.00	.00	.08
12	.00	.13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.09	.00	1.6	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.03	.00	.64	.00	.00	.00	.00	.00	.00	4.4	.00
15	.00	.00	.00	2.6	1.3	.00	.00	.00	.00	.00	.45	.00
16	.00	.00	.00	.06	.46	.00	.00	.00	.00	.00	.04	.00
17	.00	.00	.00	.30	.31	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.55	.25	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	2.9	.05	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	1.7	1.7	.00	.00	.00	.00	.00	.00	.00
21	.02	.00	.00	.90	.09	.00	.00	.00	.00	4.9	.00	.00
22	.00	.00	.00	.20	1.0	.00	.00	.00	.00	1.8	.00	.00
23	.00	.00	.00	.05	.50	.00	.00	.00	.00	.06	.00	.00
24	.00	.00	.00	.00	.12	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.01	.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	.00
30	.00	.00	.00	.56	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.80	---	.00	---	.00	---	.00	.00	---
TOTAL	.02	5.21	.00	13.12	6.50	.00	.00	.00	.00	6.76	6.78	.14
MEAN	.001	.17	.000	.42	.22	.000	.000	.000	.000	.22	.22	.005
MAX	.02	3.8	.00	2.9	1.7	.00	.00	.00	.00	4.9	4.4	.08
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.04	10	.00	26	13	.00	.00	.00	.00	13	13	.3

CAL YR 1979 TOTAL 138.19 MEAN .38 MAX 23 MIN .00 AC-FT 274
WTR YR 1980 TOTAL 38.53 MEAN .11 MAX 4.9 MIN .00 AC-FT 76

08334300 PAPERS WASH NEAR STAR LAKE TRADING POST, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS (MG/L 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)
NOV												
08...	0715	4.5	263	8.3	--	--	--	--	--	--	--	--
08...	0930	8.7	334	8.9	--	--	--	--	--	--	--	--
JAN												
14...	2230	5.2	325	8.1	--	--	--	--	--	--	--	--
FEB												
21...	1230	.08	400	8.6	5.0	.0	11.1	33	0	11	1.3	75
22...	1630	5.2	340	8.0	--	--	--	--	--	--	--	--
JUL												
21...	1230	4.5	414	7.2	--	--	--	--	--	--	--	--
21...	1235	8.7	400	7.3	--	--	--	--	--	--	--	--
21...	1245	17	384	7.3	--	--	--	--	--	--	--	--
AUG												
08...	2140	4.5	337	7.6	--	--	--	--	--	--	--	--
14...	0720	4.5	288	7.7	--	--	--	--	--	--	--	--
14...	0830	8.7	340	7.8	--	--	--	--	--	--	--	--
14...	1015	14	353	7.8	--	--	--	--	--	--	--	--

DATE	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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 CONSTITUENTS, DIS- SOLVED (MG/L) (70301)
NOV											
08...	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
JAN											
14...	--	--	--	--	--	--	--	--	--	--	--
FEB											
21...	5.7	3.7	200	2	170	9.5	12	.6	9.7	282	224
22...	--	--	--	--	--	--	--	--	--	--	--
JUL											
21...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
AUG											
08...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	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 TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDEED (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
NOV											
08...	--	--	--	--	--	--	--	25	--	--	40
08...	--	--	--	--	--	--	--	31	--	--	40
JAN											
14...	--	--	--	--	--	--	--	26	--	--	40
FEB											
21...	1.3	.540	4.4	6.2	.770	80	160	--	13	12	40
22...	--	--	--	--	--	--	--	40	--	--	40
JUL											
21...	--	--	--	--	--	--	--	240	--	--	40
21...	--	--	--	--	--	--	--	160	--	--	40
21...	--	--	--	--	--	--	--	110	--	--	40
AUG											
08...	--	--	--	--	--	--	--	120	--	--	40
14...	--	--	--	--	--	--	--	62	--	--	40
14...	--	--	--	--	--	--	--	86	--	--	40
14...	--	--	--	--	--	--	--	97	--	--	40

RIO GRANDE BASIN

08334300 PAPERS WASH NEAR STAR LAKE TRADING POST, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SAMPLE SOURCE (72005)
NOV					
08...	0715	8	.3	1	40
08...	0930	8	.2	1	40
JAN					
14...	2230	9	.5	2	40
FEB					
22...	1630	10	.2	2	40
JUL					
21...	1230	37	.2	3	40
21...	1235	38	.2	3	40
21...	1245	28	.2	3	40
AUG					
08...	2140	23	.4	3	40
14...	0720	12	.5	2	40
14...	0830	20	.5	3	40
14...	1015	22	.7	3	40

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
FEB			
21...	1230	K0	K11000

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SAMPLE SOURCE (72005)
NOV					
08...	0715	4.5	--	5840	40
08...	0930	8.7	--	4830	40
JAN					
14...	2230	5.2	--	3580	40
FEB					
21...	1230	.08	.0	7870	40
22...	1630	5.2	--	3900	40
JUL					
21...	1230	4.5	--	19800	40
21...	1235	8.7	--	13400	40
21...	1245	17	--	10900	40
AUG					
08...	2140	4.5	--	11600	40
14...	0720	4.5	--	5760	40
14...	0830	8.7	--	10800	40
14...	1015	14	--	12100	40

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 Cabezón.

DRAINAGE AREA.--1,390 mi² (3,600 km²), 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 hm²) above station.

Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--37 years, 21.3 ft³/s (0.603 m³/s), 15,430 acre-ft/yr (19.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,200 ft³/s (430 m³/s) Sept. 12, 1972, gage height, 17.5 ft (5.33 m) from floodmarks, from rating curve extended above 2,900 ft³/s (82 m³/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, 2,640 ft³/s (74.8 m³/s) at 0530 hours July 2, gage height, 7.08 ft (2.158 m), no other peak above base of 2,500 ft³/s (71 m³/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.57	.99	18	6.0	75	5.0	10	1.2	.00	2.8	2.0
2	.00	.75	.89	15	6.0	73	6.0	8.0	1.2	600	3.6	1.0
3	.00	4.4	.99	6.8	6.0	20	6.0	7.0	1.7	41	45	1.3
4	.00	5.4	1.1	10	6.0	10	6.0	6.0	1.0	5.0	5.0	1.1
5	.06	4.4	2.6	10	6.0	9.0	6.0	6.0	1.0	4.0	4.0	1.2
6	.05	4.4	5.4	3.0	6.0	10	4.7	4.0	1.0	3.0	3.6	10
7	.00	10	8.7	5.0	8.7	8.2	5.4	3.0	1.0	2.0	1.9	25
8	.03	290	8.2	14	4.4	6.8	6.8	2.0	1.0	1.9	78	7.2
9	.61	132	6.4	14	6.8	8.2	9.8	1.3	.99	2.4	14	61
10	.75	40	7.2	30	12	7.2	7.2	.99	1.3	1.9	3.0	59
11	.89	10	9.8	37	11	8.2	6.0	.75	1.2	1.3	3.0	69
12	1.1	8.0	11	31	8.7	7.2	21	2.8	.75	.89	3.0	16
13	1.3	7.0	6.0	14	8.7	5.7	15	2.6	.57	1.1	2.0	7.2
14	1.1	8.2	7.2	65	11	7.2	10	3.6	.45	7.7	33	5.0
15	2.4	5.7	9.8	132	52	6.8	9.8	52	.37	5.0	38	4.7
16	2.2	5.7	4.1	79	25	7.7	7.7	6.8	.49	.89	6.0	4.1
17	2.2	6.0	3.3	49	20	34	5.7	2.6	.70	.49	3.0	2.6
18	1.4	7.7	3.0	44	25	20	7.7	1.7	.57	.30	2.0	2.2
19	.75	6.0	3.0	90	67	10	10	2.4	.53	.27	1.7	1.9
20	.57	4.7	3.0	84	115	9.0	10	1.9	.37	.21	1.2	1.9
21	79	1.3	3.0	10	83	8.0	9.8	1.4	.00	.19	.99	1.9
22	53	1.3	3.0	8.0	65	7.0	10	1.4	.00	.15	.89	1.9
23	5.0	1.4	4.1	8.0	50	6.0	9.8	1.6	.00	.27	.99	2.2
24	3.0	.89	6.8	8.0	40	5.0	9.2	1.6	.00	99	1.7	2.4
25	1.4	.65	11	8.0	30	5.0	12	1.4	.00	5.0	92	2.2
26	.70	1.6	12	7.0	40	6.0	14	1.4	.00	3.0	11	2.2
27	4.4	30	18	7.0	40	6.0	13	1.4	.00	3.0	3.0	2.2
28	3.8	6.8	16	7.0	77	5.0	13	1.4	.00	2.0	3.0	1.7
29	2.4	1.6	6.4	7.0	102	5.0	12	1.4	.00	2.0	3.0	1.3
30	1.4	1.2	4.7	7.0	---	5.0	12	1.2	.00	2.0	2.0	1.2
31	.75	---	3.3	7.0	---	6.0	---	1.2	---	20	2.0	---
TOTAL	170.26	597.66	190.97	834.8	938.3	407.2	280.6	140.84	16.89	815.96	374.37	302.6
MEAN	5.49	19.9	6.16	26.9	32.4	13.1	9.35	4.54	.56	26.3	12.1	10.1
MAX	79	280	18	132	115	75	21	52	1.3	600	92	69
MIN	.00	.57	.89	3.0	4.4	5.0	4.7	.75	.00	.00	.89	1.0
AC-FT	338	1190	379	1660	1860	808	557	279	34	1620	743	600
CAL YR 1979	TOTAL	11490.64	MEAN	31.5	MAX	940	MIN	.00	AC-FT	22790		
WTR YR 1980	TOTAL	5070.45	MEAN	13.9	MAX	600	MIN	.00	AC-FT	10060		

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, 123,000 mg/l Aug. 15, 1979; 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, 109,000 mg/l July 2; minimum daily, no flow on several days in October, June, and July.

SEDIMENT LOADS: Maximum daily, 288,000 tons (261,000 tonnes) July 2; minimum daily, 0 ton (0 tonne) on several days in October, June, and July.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE, WATER (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 (70337)	SED. SUSP. FALL DIAM. % FINER THAN (70338)	SED. SUSP. FALL DIAM. % FINER THAN (70340)
OCT 25...	1200	1.7	1470	12.0	6680	31	87	91	92
MAR 06...	1140	8.8	1310	8.0	8270	196	63	69	80
APR 02...	1030	4.5	1750	.0	3630	44	73	80	88
MAY 16...	1000	11	146	10.0	17300	514	--	--	--
JUL 02...	0200	274	5270	--	293000	217000	16	19	27
02...	1145	334	1310	--	134000	121000	30	38	51
03...	0030	71	1350	--	38600	7400	67	75	91
03...	1530	28	1460	--	17500	1320	77	90	99
AUG 01...	1130	3.6	1990	23.0	22900	223	84	95	99
08...	1430	107	1410	--	73700	21300	59	68	88
SEP 03...	0915	1.3	2250	13.0	1620	5.7	--	--	--
03...	0916	1.3	2420	13.0	2000	7.0	--	--	--

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN (70342)	SED. SUSP. FALL DIAM. % FINER THAN (70343)	SED. SUSP. FALL DIAM. % FINER THAN (70344)	SED. SUSP. FALL DIAM. % FINER THAN (70345)
OCT 25...	94	95	99	100	--	--	--	--
MAR 06...	--	--	--	--	87	96	100	--
APR 02...	--	--	--	--	92	96	100	--
MAY 16...	92	--	--	--	--	--	--	--
JUL 02...	--	--	--	--	54	77	92	100
02...	--	--	--	--	66	75	95	100
03...	--	--	--	--	95	97	100	--
03...	--	--	--	--	100	--	--	--
AUG 01...	--	--	--	--	100	--	--	--
08...	--	--	--	--	96	98	100	--
SEP 03...	97	--	--	--	--	--	--	--
03...	86	--	--	--	--	--	--	--

DAY	MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION	
	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	0	.00	3640	5.6	5420	14	29500	1960	16700	271	73100	14800
2	0	.00	4440	9.0	4950	12	29600	1200	16700	271	73000	14400
3	0	.00	13500	160	5420	14	13000	140	16700	271	35200	1900
4	0	.00	15100	220	5720	17	22200	599	16700	271	22200	599
5	594	.30	13500	160	8260	58	22200	599	16700	271	21400	520
6	667	.14	13500	160	15100	220	10400	84	4770	77	22200	599
7	0	.00	18000	486	20400	479	14800	200	20400	479	20300	449
8	233	.23	90800	78300	20300	449	27800	1050	13500	160	18000	330
9	3280	5.4	57000	20500	17400	301	27800	1050	19600	360	20200	447
10	4440	9.0	25000	2700	18500	360	61700	5000	23100	748	18500	360
11	4950	12	20400	551	21900	579	66100	6600	24200	719	20200	447
12	5720	17	18500	400	24200	719	64500	5400	20400	479	18500	360
13	6270	22	18500	350	16700	271	27800	1050	20400	479	17500	331
14	5720	17	20300	449	18500	360	71200	12500	24200	719	14800	200
15	9260	60	14300	220	21900	579	81400	29000	46400	8600	29600	1200
16	9260	55	14300	220	13100	145	75000	16000	41500	2800	35200	1900
17	9260	55	16700	271	11200	100	69500	9190	35200	1900	45100	6170
18	6350	24	19200	399	10400	84	71500	8490	41500	2800	35200	1900
19	4440	9.0	16700	271	10400	84	76100	18500	71300	12900	22200	599
20	3640	5.6	14200	180	10400	84	68500	7400	77300	24000	21400	520
21	20500	6500	6270	22	10400	84	22200	599	75900	17000	19400	419
22	24600	3520	6270	22	10400	84	19400	419	61700	5000	17500	331
23	14000	189	8000	30	13100	145	19400	419	68100	9190	16700	271
24	9100	74	4950	12	18000	330	19400	419	35200	1900	14800	200
25	6700	25	4100	7.2	22100	1030	19400	419	35200	1900	14800	200
26	5550	10	6940	30	24400	974	17500	331	35200	1900	16700	271
27	13500	160	43800	4260	32900	1600	17500	331	61700	5000	16700	271
28	11900	122	18000	330	30100	1300	17500	331	72200	15000	14800	200
29	9260	60	6940	30	14800	200	17500	331	78100	21500	14800	200
30	6700	25	5860	19	14800	200	17500	331	---	---	14800	200
31	4440	9.0	---	---	14800	200	17500	331	---	---	16700	271
TOTAL	---	10985.67	---	110773.8	---	11076	---	130273	---	136965	---	50865
DAY	MEAN CONCEN- TRATION											

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., Valencia 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 mi² (521 km²).

PERIOD OF RECORD.--June 1927 to December 1950 (monthend contents only, published in WSP 1732), April 1958 to current year (monthend contents only).

GAGE.--Water-stage recorder. Datum of gage is 7,345.57 ft (2,238.930 m) 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 hm³) 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 hm³) 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 hm³) at crest of ungated spillway over dam, and that used from 1945-50, 43,500 acre-ft (53.6 hm³). 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 m³) at elevation 7,345.4 ft (2,238.88 m) sill of lower outlet tube. Lake not usually drawn below conservation pool level elevation, 7,365.36 ft (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 hm³) Apr. 30, 1941. Contents may have been greater on Apr. 28, 1941 when peak discharge of 800 ft³/s (22.7 m³/s) occurred at station 8 mi (13 km) downstream; no storage at times prior to 1947.

EXTREMES FOR CURRENT YEAR.--Maximum contents, about 40,730 acre-ft (50.2 hm³) Apr. 24, 25, elevation, about 7,403.8 ft (2,256.68 m); minimum, 16,040 acre-ft (19.8 hm³) Jan. 10, elevation, 7,386.0 ft (2,251.25 m).

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	7387.7	17,800	----
Oct. 31	7386.6	16,650	-1150
Nov. 30	7386.3	16,340	-310
Dec. 31	7386.1	16,140	-200
CAL YR 1979			+13320
Jan. 31	7386.3	16,340	+200
Feb. 29	7389.4	19,730	+3390
Mar. 31	7395.6	27,600	+7870
Apr. 30	7403.0	39,240	+11640
May 31	7402.4	38,150	-1090
June 30	7400.6	35,010	-3140
July 31	7399.3	32,930	-2080
Aug. 31	7397.9	30,840	-2090
Sept. 30	7397.2	29,830	-1010
WTR YR 1980			+12030

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 mi² (195.8 km²).

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 ft³/s (17.8 m³/s) Aug. 12, 1977, gage height, 5.80 ft (1.768 m), from slope-area measurement of peak flow; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16 ft³/s (0.45 m³/s) Sept. 11, gage height, 2.30 ft (0.701 m); no flow for many days.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.61	.25	1.3	.08	.08	.26	.00	.00	.00	.00	.00
2	.06	.58	.15	1.5	.04	.17	.30	.00	.00	.00	.00	.00
3	.03	.49	.05	1.1	.03	.33	.31	.00	.00	.00	.01	.00
4	.07	.73	.05	1.4	.03	.30	.11	.00	.00	.00	.00	.00
5	.07	.48	.20	.88	.03	.10	.05	.00	.00	.00	.00	.00
6	.09	.49	.18	.80	.04	.14	.06	.00	.00	.00	.00	.50
7	.00	.45	.15	.75	.05	.05	.06	.00	.00	.00	.00	1.5
8	.00	.40	.11	.70	.10	.07	.14	.00	.00	.00	.42	2.3
9	.00	.30	.13	.67	.08	.06	.13	.00	.00	.00	.06	3.0
10	.00	.30	.10	.42	.08	.05	.06	.00	.00	.00	.00	1.3
11	.09	.20	.10	.63	.00	.28	.10	.00	.00	.00	.00	2.5
12	.15	.20	.09	.36	.00	.26	.39	.00	.00	.00	.00	.70
13	.20	.30	.11	.34	.00	.06	.35	.00	.00	.00	.00	.20
14	.31	.00	.10	.25	.00	.00	.12	.00	.00	.00	.70	.00
15	.25	.00	.13	.73	.86	.00	.10	.00	.00	.00	.32	.00
16	.20	.00	.17	.25	.40	.00	.00	.00	.00	.00	.00	.00
17	.31	.00	.16	.19	.20	.00	.44	.00	.00	.00	.00	.00
18	.35	.00	.19	.22	.00	.00	.85	.00	.00	.00	.00	.00
19	.42	.00	.23	.40	.00	.05	1.2	.00	.00	.00	.00	.00
20	.33	.00	.23	.54	.00	.31	1.5	.00	.00	.00	.00	.00
21	.84	.00	.21	.55	.00	.24	1.6	.00	.00	.00	.00	.00
22	.24	.00	.33	.56	.00	.21	1.5	.00	.00	.95	.00	.00
23	.07	.05	.46	.56	.00	.11	1.2	.00	.00	.66	.00	.00
24	.19	.10	.34	.59	.00	.19	1.7	.00	.00	.28	.00	.00
25	.23	.30	.46	.57	.00	.35	1.9	.00	.00	.05	.00	.00
26	.34	.30	.50	.45	.00	.29	1.5	.00	.00	.00	.00	.00
27	.46	.20	.39	.40	.00	.51	1.8	.00	.00	.00	.00	.00
28	.56	.14	.25	.40	.04	.61	3.0	.00	.00	.00	.00	.00
29	.60	.20	.50	.40	.15	.32	1.0	.00	.00	.00	.00	.00
30	.69	.29	1.1	.35	---	.15	.00	.00	.00	.00	.00	.00
31	.49	---	1.4	.40	---	.15	---	.00	---	.12	.00	---
TOTAL	7.73	7.11	8.82	18.66	2.21	5.44	21.73	.00	.00	2.06	1.51	12.00
MEAN	.25	.24	.28	.60	.076	.18	.72	.000	.000	.066	.049	.40
MAX	.84	.73	1.4	1.5	.86	.61	3.0	.00	.00	.95	.70	3.0
MIN	.00	.00	.05	.19	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	15	14	17	37	4.4	11	43	.00	.00	4.1	3.0	24
CAL YR 1979	TOTAL	123.81	MEAN .34	MAX 12	MIN .00	AC-FT 246						
WTR YR 1980	TOTAL	87.27	MEAN .24	MAX 3.0	MIN .00	AC-FT 173						

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 mi² (2,640 km²), approximately.

PERIOD OF RECORD.--October 1912 to February 1914, June 1914, October 1914 to February 1915, May 1915 to June 1921, September 1921 to June 1923, October 1923 to May 1926, September to December 1926, May 1949 to September 1966, June 1968 to current year. Monthly discharge only for some periods published in WSP 1312. Prior to October 1967, published as "Bluewater Creek at Grants".

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 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--39 years (water years 1913, 1915-20, 1922, 1924-25, 1950-66, 1968-80), 3.30 ft³/s (0.093 m³/s), 2,390 acre-ft/yr (2.95 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (1950-66 AND SINCE 1968).--Maximum discharge recorded, 1,760 ft³/s (49.8 m³/s) Aug. 28, 1952, gage height, 5.35 ft (1.631 m), from rating curve extended above 300 ft³/s (8.50 m³/s) on basis of velocity-area studies; no flow for long periods.

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, 355 ft³/s (10.1 m³/s) at 0100 hours Apr. 21, gage height, 4.38 ft (1.335 m), no other peak above base of 200 ft³/s (5.7 m³/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	22	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	20	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	22	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	22	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	23	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	22	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	22	.00	.00	.00	.00
8	.00	1.3	.00	.00	.00	.00	.00	22	.00	.00	.00	1.1
9	.00	.52	.00	.00	.00	.00	.00	22	.00	.00	.00	3.9
10	.00	.00	.00	.00	.00	.00	.00	20	.00	.00	.00	.73
11	.00	.00	.00	.00	.00	.00	.00	18	.00	.00	.00	1.0
12	.00	.00	.00	.00	.00	.00	.00	18	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	17	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	16	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	15	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	10	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	30	8.8	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	185	7.6	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	344	4.6	.00	1.9	.00	.00
21	.00	.00	.00	.00	.00	.00	355	2.3	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	263	.52	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	244	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	194	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	178	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	296	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	245	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	163	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	92	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	21	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	1.82	.00	.00	.00	.00	2610.00	343.32	.00	1.90	.00	6.73
MEAN	.000	.061	.000	.000	.000	.000	87.0	11.1	.000	.061	.000	.22
MAX	.00	1.3	.00	.00	.00	.00	355	23	.00	1.9	.00	3.9
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	3.6	.00	.00	.00	.00	5180	681	.00	3.8	.00	13

CAL YR 1979 TOTAL 48.26 MEAN .13 MAX 38 MIN .00 AC-FT 96
WTR YR 1980 TOTAL 2963.77 MEAN 8.10 MAX 355 MIN .00 AC-FT 5880

RIO GRANDE BASIN
08343000 RIO SAN JOSE AT GRANTS, NM -- Continued
WATER QUALITY RECORDS

231

PERIOD OF RECORD.--April 1980.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (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)
APR 18...	1625	45	510	7.6	14.0	250	120	75	16	13
22...	1505	246	310	7.8	16.0	130	35	39	8.4	5.9
29...	1315	76	300	8.0	4.5	--	--	--	--	--

DATE	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINEITY (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)
APR 18...	.4	11	130	130	12	.3	1.9	356	341
22...	.2	2.4	97	49	2.7	.3	39	172	206
29...	--	--	--	--	--	--	--	--	--

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, ORTHOPH- OSPHATE DISSOL. (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
APR 18...	1.1	.69	.150	14	15	3.800	.110	80	160
22...	.13	.10	.340	1.6	2.0	.610	.040	50	33
29...	--	--	--	--	--	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	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)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)
APR 18...	1625	--	80	--	--	--	1	--
19...	1335	110	50	0	0	2	1	5.0
22...	1505	--	50	--	--	--	0	--

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
APR 19...	1335	8.2	120	6.2	120	5.9	110	.13
29...	1315	4.0	22	4.2	14	4.0	13	.07

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. & FINER THAN .062 MM (70331)
APR 18...	1625	45	14.0	8300	1010	99
19...	1335	163	14.0	4050	1780	95
22...	1505	246	16.0	1290	857	91
29...	1315	76	4.5	524	108	60

RIO GRANDE BASIN

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 mi² (33.7 km²).

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.--19 years, 0.150 ft³/s (0.004 m³/s), 109 acre-ft/yr (134,400 m³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,550 ft³/s (43.9 m³/s) Aug. 26, 1963, gage height, 5.10 ft (1.554 m), from rating curve extended above 220 ft³/s (6.23 m³/s) on basis of slope-area measurements at gage heights 3.17 ft (0.966 m), 5.10 ft (1.554 m), and 5.38 ft (1.640 m); maximum gage height, 5.38 ft (1.640 m) Sept. 8, 1967; no flow for most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 175 ft³/s (5.0 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Aug. 8	2000	220 6.23	1.80 0.549	Sept. 10	2130	*279 7.90	2.04 0.622

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
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	.04	.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	.44	.00	.00	.00	.00	.00	.00	.00	.00	.00	.16
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.1
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
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	.02	.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	.05	.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	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.05	.44	.00	.00	.00	.00	.00	.02	.00	.00	.04	8.52
MEAN	.002	.015	.000	.000	.000	.000	.000	.001	.000	.000	.001	.28
MAX	.05	.44	.00	.00	.00	.00	.00	.02	.00	.00	.04	8.1
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.10	.9	.00	.00	.00	.00	.00	.04	.00	.00	.08	17
CAL YR 1979	TOTAL 2.13	MEAN .006	MAX 1.2	MIN .00	AC-FT 4.2							
WTR YR 1980	TOTAL 9.07	MEAN .025	MAX 8.1	MIN .00	AC-FT 18							

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).

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.

AVERAGE DISCHARGE.--44 years, 6.69 ft³/s (0.189 m³/s), 4,850 acre-ft/yr (5.98 hm³/yr).

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.--Peak discharges above base of 100 ft³/s (2.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
Nov. 9	0400	140	3.96	2.45	0.747	Aug. 7	2230	190	5.38	2.76	0.841
Apr. 22	0600	*352	9.97	3.35	1.021						

Minimum discharge, 3.6 ft³/s (0.10 m³/s) Oct. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	5.4	5.0	11	5.3	6.3	5.6	24	6.6	6.7	8.7	8.4
2	3.6	4.9	5.6	10	5.1	6.2	5.6	25	6.9	6.8	9.2	8.0
3	3.8	5.3	6.4	11	5.2	6.4	5.5	25	7.0	7.0	9.2	8.2
4	3.9	5.6	6.1	11	5.1	6.5	5.4	27	6.9	7.1	9.4	8.2
5	4.3	5.3	6.1	11	5.5	6.4	5.4	28	6.8	6.9	10	8.2
6	4.9	5.5	6.3	11	5.5	6.4	5.3	28	6.8	6.8	10	8.3
7	5.2	6.9	6.4	11	5.6	6.3	5.2	27	6.8	6.8	29	8.5
8	5.0	6.6	6.5	11	5.0	5.7	5.1	27	6.8	6.8	41	17
9	4.6	37	6.9	9.9	5.1	5.7	5.3	26	6.8	6.7	29	15
10	4.8	8.4	7.0	9.6	5.5	5.7	5.4	25	6.8	6.8	14	23
11	4.6	5.7	7.0	9.3	5.5	6.1	5.4	23	6.7	6.8	9.0	20
12	4.8	5.5	7.3	9.1	5.6	6.0	5.4	20	6.6	7.0	8.7	19
13	4.8	6.0	7.1	9.1	5.5	5.9	6.5	20	6.6	7.0	8.4	8.4
14	4.9	7.1	7.5	9.1	5.7	6.0	6.4	19	6.7	7.0	8.8	7.0
15	5.3	8.1	7.5	9.0	7.1	6.1	6.0	19	6.7	7.1	9.1	6.2
16	5.1	8.8	7.4	8.9	8.4	6.2	5.9	19	6.7	6.7	9.3	6.3
17	4.9	9.1	7.8	8.3	8.2	5.8	5.9	13	6.8	6.7	9.4	6.5
18	5.0	10	7.8	8.6	6.5	6.1	5.8	11	6.4	6.8	9.0	6.4
19	5.0	10	8.0	8.2	6.3	6.2	32	11	6.4	6.8	9.2	6.6
20	5.4	11	8.5	9.4	6.4	6.0	240	10	6.4	7.1	9.3	6.9
21	6.2	11	8.9	8.1	6.5	5.9	327	8.1	6.5	6.8	9.5	6.6
22	6.5	9.6	8.6	7.2	6.5	5.7	320	7.1	6.5	7.0	9.5	6.4
23	6.9	4.5	8.6	6.7	6.2	6.0	262	6.7	6.5	7.4	9.0	6.1
24	5.6	4.8	8.5	6.2	6.6	5.9	246	6.8	6.7	7.7	11	6.2
25	5.7	5.8	9.0	6.4	6.4	6.0	182	6.4	6.8	7.9	10	6.2
26	5.5	5.5	9.6	6.0	6.5	5.6	275	6.1	6.7	8.0	9.6	6.1
27	5.5	5.2	10	5.8	6.5	5.8	333	6.1	6.6	8.3	9.0	6.3
28	5.6	4.8	10	5.2	6.6	5.7	207	6.7	6.6	8.6	8.3	6.0
29	5.4	5.0	10	5.5	6.5	5.7	167	6.6	6.6	8.8	8.2	6.1
30	5.7	4.9	9.6	5.3	---	5.8	47	6.7	6.7	9.2	8.3	6.2
31	5.6	---	10	5.4	---	5.6	---	6.7	---	9.0	8.3	---
TOTAL	157.8	292.7	241.0	263.3	176.4	185.7	2739.1	501.0	200.4	226.1	360.4	263.3
MEAN	5.09	9.76	7.77	8.49	6.08	5.99	91.3	16.2	6.68	7.29	11.6	8.78
MAX	6.9	66	10	11	8.4	6.5	333	28	7.0	9.2	41	23
MIN	3.6	4.5	5.0	5.2	5.0	5.6	5.1	6.1	6.4	6.7	8.2	6.0
AC-FT	313	581	478	522	350	368	5430	994	397	448	715	522
CAL YR 1979	TOTAL	2451.3	MEAN	6.72	MAX	66	MIN	3.6	AC-FT	4860		
WTR YR 1980	TOTAL	5607.2	MEAN	15.3	MAX	333	MIN	3.6	AC-FT	11120		

RIO GRANDE BASIN
08343500 RIO SAN JOSE NEAR GRANTS, NM -- Continued
WATER QUALITY RECORDS

PERIOD OF RECORD.--April 1980.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (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)
APR 22...	1230	333	435	7.7	10.5	160	54	46	12	20
23...	1530	262	430	7.8	--	--	--	--	--	--

DATE	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY (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 (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (70301)
------	----------------------------------------------------	----------------------------------------------------------------	---------------------------------------------------	----------------------------------------------------------	----------------------------------------------------------------	---------------------------------------------------------------	--------------------------------------------------------------	---------------------------------------------------------------------	----------------------------------------------------------------------

APR 22...	.7	4.1	110	82	12	.2	8.8	261	254
23...	--	--	--	--	--	--	--	--	--

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, ORTHOPH- OSPHATE DISSOL. (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
------	-----------------------------------------------------------------	--------------------------------------------------------------------------	-----------------------------------------------------------------	-----------------------------------------------------------------	------------------------------------------------------	--------------------------------------------------------	---------------------------------------------------------------------------------	-------------------------------------------------------	----------------------------------------------------------

APR 22...	.66	.67	.010	1.7	2.4	.650	.170	80	25
23...	--	--	--	--	--	--	--	130	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	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)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)
APR 22...	1230	--	80	--	--	--	0	--
23...	1530	130	130	1	2	1	0	4.0

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90) (80060)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)
APR 23...	1530	4.7	31	4.7	25	4.4	23	.15

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (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 22...	1230	333	10.5	672	604	100
23...	1530	262	--	529	374	100

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 mi² (277 km²).

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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,300 ft³/s (65.1 m³/s) Aug. 24, 1976, gage height, 8.60 ft (2.621 m), from slope-area measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.8 m³/s) and maximum (*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft ³ /s)	(m ³ /s)	(ft)	(m)			(ft ³ /s)	(m ³ /s)	(ft)	(m)
Sept. 9	0915	133	3.77	3.44	1.049	Sept. 11	0015	*580	16.4	4.58	1.396

No flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.27	.43	.45	.75	1.9	1.7	1.9	.29	.24	.01	.03	.00
2	.26	.42	.47	.75	1.7	1.8	1.8	.29	.24	.02	.03	.00
3	.22	.44	.49	1.0	1.7	1.8	1.8	.31	.24	.04	.05	.00
4	.23	.42	.51	1.3	1.7	1.6	1.7	.34	.24	.04	.05	.02
5	.25	.40	.44	1.5	1.7	1.6	1.4	.37	.19	.04	.42	.20
6	.23	.43	.43	1.4	1.6	1.7	1.3	.33	.18	.03	.06	.30
7	.24	.56	.50	1.1	1.9	1.8	1.2	.34	.18	.04	.05	.36
8	.23	3.3	.49	1.0	1.9	1.7	1.2	.34	.19	.05	.05	.46
9	.24	.56	.48	1.1	1.8	1.6	1.0	.33	.18	.05	.06	22
10	.26	.56	.53	1.2	1.7	1.7	.99	.31	.17	.06	.07	1.2
11	.25	.58	.57	1.5	2.0	1.8	.98	.32	.14	.05	.06	42
12	.25	.60	.57	1.3	1.7	1.8	1.0	.31	.11	.05	.07	.32
13	.26	.62	.55	1.2	1.6	1.7	.89	.31	.11	.06	.08	.25
14	.29	.66	.57	1.3	1.5	1.7	.77	.30	.11	.08	.65	.20
15	.28	.70	.62	1.4	2.0	1.7	.74	.36	.10	.08	.41	.14
16	.28	.70	.71	1.3	1.9	1.9	.63	.31	.07	.06	.25	.12
17	.29	.72	.64	1.3	1.6	1.9	.59	.34	.06	.06	.10	.10
18	.30	.74	.67	1.6	1.6	1.7	.53	.31	.05	.07	.10	.08
19	.31	.78	.75	2.4	1.6	1.9	.44	.29	.07	.08	.20	.07
20	.30	.92	.76	3.2	1.7	1.8	.45	.25	.08	.08	.00	.06
21	.44	.85	.73	2.2	2.0	1.8	.41	.23	.08	.12	.00	.06
22	.34	.84	.73	2.0	1.9	1.9	.41	.24	.07	.04	.00	.05
23	.35	.80	.75	2.0	2.0	1.9	.36	.24	.05	.03	.08	.05
24	.34	.73	.88	2.2	2.0	2.0	.36	.22	.05	.03	.00	.05
25	.35	.68	.90	2.2	1.8	2.0	.36	.23	.05	.03	.06	.05
26	.36	.53	.77	1.9	1.7	1.9	.29	.24	.05	.03	.00	.05
27	.36	.48	1.0	1.7	1.8	1.9	.21	.23	.04	.03	.00	.05
28	.38	.48	.95	2.0	1.7	2.0	.23	.22	.05	.03	.00	.05
29	.38	.43	.80	1.9	1.6	1.9	.30	.21	.04	.03	.00	.05
30	.40	.43	.84	1.9	---	1.8	.32	.21	.02	.02	.00	.05
31	.40	---	.75	1.8	---	1.9	---	.22	---	.02	.00	---
TOTAL	9.34	20.79	20.30	49.40	51.3	55.9	24.56	8.84	3.45	1.46	2.93	68.39
MEAN	.30	.69	.65	1.59	1.77	1.80	.82	.29	.12	.047	.095	2.28
MAX	.44	3.3	1.0	3.2	2.0	2.0	1.9	.37	.24	.12	.65	.42
MIN	.22	.40	.43	.75	1.5	1.6	.21	.21	.02	.01	.00	.00
AC-FT	19	41	40	98	102	111	49	18	6.8	2.9	5.8	136
CAL YR 1979	TOTAL	457.07	MEAN	1.25	MAX	14	MIN	.07	AC-FT	907		
WTR YR 1980	TOTAL	316.66	MEAN	.87	MAX	42	MIN	.00	AC-FT	628		

RIO GRANDE BASIN

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., Valencia 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 mi² (9,480 km²), approximately, of which about 1,130 mi² (2,930 km²) does not contribute directly to surface runoff.

PERIOD OF RECORD.--April 1943 to current year. Prior to October 1955, published as "San Jose River at Correo".

GAGE.--Water-stage recorder 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 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.--37 years, 11.3 ft³/s (0.320 m³/s), 8,190 acre-ft/yr (10.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,150 ft³/s (202 m³/s) Aug. 11, 1955; maximum gage height, 20.7 ft (6.31 m), Aug. 22, 1958, backwater from dam (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 ft³/s or 312 m³/s), but was probably exceeded by the flood of Sept. 23, 1929 (discharge not determined), based on study of records for Rio Puerco at Rio Puerco.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,490 ft³/s (42.2 m³/s) at 1000 hours Sept. 11, gage height, 6.00 ft (1.829 m), no other peak above base of 800 ft³/s (23 m³/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	4.5	4.4	4.0	4.1	92	.00	.00	.00	.00
2	.00	.00	.00	4.0	4.4	4.1	3.4	44	.00	.00	.00	.00
3	.00	.00	.00	3.0	4.3	4.2	3.1	29	.00	.00	.00	.00
4	.00	.00	.00	1.9	4.2	4.5	2.9	26	.00	.00	.00	.00
5	.00	.00	.00	3.0	4.2	4.6	2.9	23	.00	.00	.00	.00
6	.00	.00	.00	4.0	4.2	4.7	3.4	23	.00	.00	.00	.00
7	.00	.00	.00	5.0	4.4	4.6	2.6	20	.00	.00	.00	.00
8	.00	.00	.00	6.0	4.5	4.5	2.7	18	.00	.00	.00	80
9	.00	.00	.00	7.0	4.2	4.3	3.0	16	.00	.00	.00	302
10	.00	.00	.00	7.0	8.5	4.2	3.7	13	.00	.00	.00	421
11	.00	.00	.00	5.8	5.2	4.4	3.9	10	.00	.00	.00	552
12	.00	.00	.00	5.8	5.2	4.5	4.0	10	.00	.00	.00	422
13	.00	.00	.00	5.8	5.9	4.2	4.1	10	.00	.00	.00	84
14	.00	.00	.00	5.3	5.6	4.2	4.8	9.0	.00	.00	.00	40
15	.00	.00	.00	5.1	6.0	4.2	4.9	8.8	.00	.00	.00	32
16	.00	.00	.00	4.8	6.1	4.1	4.0	6.7	.00	.00	.00	61
17	.00	.00	.00	4.5	6.3	4.0	3.6	5.9	.00	.00	.00	39
18	.00	.00	.00	5.1	6.5	4.0	3.1	6.6	.00	.00	.00	33
19	.00	.00	.00	6.0	6.7	3.9	2.8	5.4	.00	.00	1.3	27
20	.00	.00	.00	6.9	6.7	3.6	2.6	3.1	.00	.00	.00	21
21	.00	.00	.00	6.7	6.2	3.5	2.8	1.8	.00	.00	.00	16
22	.00	.00	.00	5.9	5.9	4.3	135	1.9	.00	16	.00	11
23	.00	.00	.00	5.6	5.2	4.3	294	6.7	.00	.10	.00	7.5
24	.00	.00	.00	5.5	4.8	4.2	235	3.3	.00	.00	.00	6.2
25	.00	.00	.00	5.8	4.8	4.3	217	2.6	.00	.00	.00	4.8
26	.00	.00	1.6	5.2	4.6	4.6	179	1.7	.00	.00	.00	3.3
27	.00	.00	3.0	4.6	4.4	5.4	158	1.2	.00	.00	.00	1.7
28	.00	.00	2.9	4.7	4.2	5.2	283	.60	.00	.00	.00	.00
29	.00	.00	1.9	4.6	4.1	5.4	227	.00	.00	.00	.00	.00
30	.00	.00	3.5	4.5	---	5.2	138	.00	.00	.00	.00	.00
31	.00	---	4.0	4.4	---	5.6	---	.00	---	.00	.00	---
TOTAL	.00	.00	16.90	158.0	151.7	136.8	1938.4	399.30	.00	16.10	1.30	2164.50
MEAN	.000	.000	.55	5.10	5.23	4.41	64.6	12.9	.000	.52	.042	72.2
MAX	.00	.00	4.0	7.0	8.5	5.6	294	92	.00	16	1.3	552
MIN	.00	.00	.00	1.9	4.1	3.5	2.6	.00	.00	.00	.00	.00
AC-FT	.00	.00	34	313	301	271	3840	792	.00	32	2.6	4290
CAL YR 1979	TOTAL	741.86	MEAN	2.03	MAX	28	MIN	.00	AC-FT	1470		
WTR YR 1980	TOTAL	4983.00	MEAN	13.6	MAX	552	MIN	.00	AC-FT	9880		

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 mi² (19,040 km²), approximately, of which at least 1,130 mi² (2,930 km²) 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 km²) above station (includes 3,700 acres or 15.0 km² irrigated wholly or partly from wells).

AVERAGE DISCHARGE.--40 years (water years 1941-80), 46.7 ft³/s (1.323 m³/s), 33,830 acre-ft/yr (41.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,800 ft³/s (532 m³/s) Sept. 23, 1941, from rating curve extended above 7,800 ft³/s (221 m³/s); maximum gage height, 16.9 ft (5.15 m) present datum, Aug. 12, 1955; no flow for extended periods.

EXTREMES OUTSIDE PERIOD OF RECORD.--The greatest flood since about 1880 occurred Sept. 23, 1929, from information by local residents (discharge, about 35,000 ft³/s or 991 m³/s, estimated on basis of peak at Rio Puerco).

Another flood occurred Aug. 12, 1929 (discharge, 30,600 ft³/s or 867 m³/s, by slope-area method, from reports of State Engineer).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,450 ft³/s (69.4 m³/s) Sept. 11, gage height, 10.96 ft (3.341 m), no peak above base of 2,000 ft³/s (57 m³/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	8.5	.00	200	30	.00	.00	.00
2	.00	.00	.00	.00	.00	47	.00	50	30	.00	21	.00
3	.00	.00	.00	.00	.00	36	.00	80	25	45	9.6	.00
4	.00	.00	.00	.00	.00	26	.00	100	25	242	3.0	.00
5	.00	.00	.00	.00	1.0	21	.00	58	20	44	.00	.00
6	.00	.00	.00	.00	4.0	18	.00	45	15	5.0	.00	.00
7	.00	.00	.00	.00	1.0	16	.00	40	14	.00	.00	24
8	.00	2.0	.00	.00	.00	13	.00	45	14	.00	.00	30
9	.00	1.0	.00	.00	.00	11	.00	56	48	.00	2.0	302
10	.00	79	.00	.00	.00	9.3	.00	66	616	.00	.00	872
11	.00	20	.00	.00	.00	8.2	.00	63	300	.00	.00	950
12	.00	5.0	.00	.00	.30	7.3	.00	50	50	.00	.00	300
13	.00	3.0	.00	.00	.30	2.0	.00	33	30	.00	.08	80
14	.00	.50	.00	.00	21	.00	.00	40	15	.00	3.8	50
15	.00	.20	.00	2.0	2.2	.00	.00	51	10	.00	26	34
16	.00	.00	.00	5.0	3.6	.00	.00	56	6.3	.00	20	20
17	.00	.00	.00	50	55	.00	.00	80	4.7	.00	4.0	10
18	.00	.00	.00	70	153	.00	.00	60	1.3	.00	13	5.0
19	.00	.00	.00	100	66	.00	.00	55	.09	.00	15	5.0
20	.00	.00	.00	50	46	.00	.00	50	.00	.00	3.0	5.0
21	.00	.00	.00	45	79	.00	.00	50	.00	.00	.00	5.0
22	.00	.00	.00	50	137	.00	.00	30	.00	2.0	.00	4.8
23	.00	.00	.00	5.0	96	.00	88	20	.00	.00	.00	2.0
24	.00	.00	.00	.00	45	.00	250	40	.00	.00	.00	.00
25	.00	.00	.00	.00	30	.00	240	40	.00	.00	.00	.00
26	.00	.00	.00	.00	25	.00	253	35	.00	.00	.00	.00
27	.00	.00	.00	.00	18	.00	233	35	.00	.00	.00	.00
28	.00	.00	.00	.00	14	.00	202	30	.00	.00	.00	.00
29	.00	.00	.00	1.0	11	.00	308	30	.00	.00	.00	.00
30	.00	.00	.00	3.0	---	.00	237	32	.00	.00	.00	.00
31	.00	---	.00	5.0	---	.00	---	32	---	.00	.00	---
TOTAL	.00	110.70	.00	386.00	808.40	223.30	1811.00	1652	1254.39	338.00	120.48	2698.80
MEAN	.000	3.69	.000	12.5	27.9	7.20	60.4	53.3	41.8	10.9	3.89	90.0
MAX	.00	79	.00	100	153	47	308	200	616	242	26	950
MIN	.00	.00	.00	.00	.00	.00	.00	20	.00	.00	.00	.00
AC-FT	.00	220	.00	766	1600	443	3590	3280	2490	670	239	5350
CAL YR 1979	TOTAL	12259.80	MEAN	33.6	MAX	1130	MIN	.00	AC-FT	24320		
WTR YR 1980	TOTAL	9403.07	MEAN	25.7	MAX	950	MIN	.00	AC-FT	18650		

RIO GRANDE BASIN
08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 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.--Chemical analyses are run on composite samples collected during the day of period indicated. Composite analyses are made by using equal volumes of each daily sample. 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) on many days of each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 4,720 micromhos Aug. 9; minimum daily, 700 micromhos June 10.

WATER TEMPERATURES: Maximum, 27.0°C June 16; minimum, 3.0°C Jan. 16, 17, 22.

SEDIMENT CONCENTRATIONS: Maximum daily, 190,000 mg/L July 4; minimum daily, no flow on many days.

SEDIMENT LOADS: Maximum daily, 278,000 tons (252,000 tonnes) Sept. 10; minimum daily, 0 tons (0 tonnes) on many days.

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM- FLOW (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS 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 (MG/L AS CACO3) (00410)
NOV											
14...	.50	1950	7.6	350	180	99	24	310	7.3	7.4	170
JAN											
15-30	24	2280	8.0	480	300	130	37	360	7.2	7.3	180
FEB											
06-18	18	2820	7.8	660	460	170	56	420	7.1	10	200
19-28	56	1880	7.6	420	260	120	28	250	5.3	6.3	160
29...	11	2480	7.8	530	350	140	43	380	7.2	7.9	180
MAR											
01-08	23	2060	8.3	430	250	120	31	330	6.9	6.5	180
09-13	7.2	2580	8.3	540	380	140	47	400	7.5	7.9	160
APR											
23...	88	4690	7.2	1200	910	320	98	720	9.0	13	290
24-29	248	1450	8.2	420	250	120	29	170	3.6	8.1	170
30...	237	1190	8.4	330	200	94	24	130	3.1	6.8	130
MAY											
01-03	110	1340	7.7	390	220	110	27	150	3.3	7.4	170
04-31	47	1940	7.8	530	350	150	37	250	4.7	7.1	180
JUN											
01-09	26	1930	7.7	560	440	160	40	250	4.6	6.3	120
10...	616	700	7.5	220	57	67	12	63	1.9	5.0	160
11...	300	1310	7.4	390	240	120	22	140	3.1	7.4	150
12-17	19	2290	7.5	710	550	200	50	280	4.6	7.5	160
JUL											
05...	44	2340	7.0	650	360	190	43	310	5.3	8.3	290
AUG											
09...	2.0	4720	6.8	1100	780	310	77	780	10	17	310
14-16	17	2810	7.0	810	550	240	50	400	6.1	10	260
19-20	9.0	2390	7.1	730	520	220	45	310	5.0	10	210
SEP											
08...	30	2360	7.4	640	460	200	34	300	5.2	14	180
09...	302	727	7.8	210	49	64	12	66	2.0	6.7	160
10...	872	2050	7.2	570	430	170	36	220	4.0	11	140
11-12	625	1030	7.6	160	0	49	10	150	5.1	7.7	190
13-18	33	1260	7.8	400	260	120	24	150	3.3	10	140
19...	5.0	1270	7.7	280	120	84	18	160	4.1	9.6	160
WTD. AVG.	--	1620	7.7	418	252	120	28	206	4.4	7.8	170
TIME WTD.											
AVG.	69	2080	7.8	523	348	146	38	290	5.5	7.8	176
TOT. LOAD (TONS)	--	--	--	--	--	2890	685	4950	--	187	4080

08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 STO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	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)
NOV											
14...	720	93	.9	9.4	--	1370	1.86	1.85	.93	--	--
JAN											
15-30	900	130	.8	12	--	1690	2.30	110	1.2	--	--
FEB											
06-18	1100	200	.4	20	--	2100	2.86	102	.80	--	--
19-28	710	53	1.1	9.6	--	1280	1.74	194	.71	--	--
29...	840	160	1.2	8.9	--	1690	2.30	50.2	.73	--	--
MAR											
01-08	800	110	.8	8.9	--	1520	2.07	94.4	.10	--	--
09-13	1000	190	.9	10	--	1890	2.57	36.7	.05	--	--
APR											
23...	1800	380	.9	11	--	3520	4.79	836	.09	--	--
24-29	540	.57	.9	9.6	--	1040	1.41	696	.61	--	--
30...	430	52	.9	7.2	--	824	1.12	527	.26	--	--
MAY											
01-03	480	58	.8	12	--	948	1.29	282	--	190	<10
04-31	810	59	.9	12	--	1430	1.94	181	--	160	<10
JUN											
01-09	870	48	.8	8.0	--	1460	1.99	103	.25	--	--
10...	150	22	.6	15	--	431	.59	717	.10	--	--
11...	460	44	.6	17	--	901	1.23	730	.04	--	--
12-17	1000	54	.7	11	--	1700	2.31	87.2	.09	--	--
JUL											
05...	860	56	1.1	14	--	1660	2.26	197	.00	--	--
AUG											
09...	1800	500	.7	18	--	3690	5.02	19.9	.32	--	--
14-16	1200	130	.7	17	--	2210	3.01	101	.29	--	--
19-20	960	120	.7	16	--	1810	2.46	44.0	.49	--	--
SEP											
08...	800	140	.7	16	--	1610	2.19	130	--	430	30
09...	140	30	.6	16	--	432	.59	352	--	150	<10
10...	840	41	.6	14	--	1420	1.93	3340	--	290	<10
11-12	220	48	.7	14	--	614	.84	1040	--	470	<10
13-18	480	45	.7	12	--	926	1.26	82.5	--	280	<10
19...	380	56	.7	13	--	818	1.11	11.0	--	350	<10
WTD. AVG.	597	63	.8	12	--	1140	1.55	--	--	--	--
TIME WTD.											
AVG.	825	97	.8	12	--	1520	2.07	--	--	--	--
TOT. LOAD (TONS)	14400	1500	19	298	--	27400	--	--	--	--	--

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (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)
JAN											
18...	1630	70	7.0	79900	15100	65	77	96	100	--	--
22...	1130	60	3.5	44000	7130	70	79	97	100	--	--
FEB											
18...	0830	167	7.0	149000	67200	53	62	80	96	99	100
27...	1300	18	10.0	51400	2500	77	88	100	--	--	--
MAR											
07...	1115	18	10.0	41200	2000	81	86	100	--	--	--
09...	1530	11	14.0	33700	1000	80	91	100	--	--	--
APR											
25...	0955	256	10.0	45100	31200	51	59	68	91	99	100
28...	1200	202	15.0	39800	21700	48	53	71	90	99	100
MAY											
13...	1420	33	14.0	74600	6650	60	72	87	98	100	--
30...	1100	57	15.0	86100	13300	56	68	81	97	100	--
JUN											
16...	1325	6.1	25.0	85500	1410	82	91	99	100	--	--
AUG											
16...	1000	20	17.0	177000	9560	67	77	94	100	--	--
SEP											
22...	1245	4.8	20.5	22000	285	96	98	99	100	--	--

RIO GRANDE BASIN
08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued
WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	OCT	NOV	DEC	JAN	ONCE-DAILY		APR	MAY	JUN	JUL	AUG	SEP
					FEB	MAR						
1				---	---	2350	---	1250	1850	---	---	---
2				---	---	2340	---	1280	1890	---	---	---
3				---	---	2050	---	1500	1890	---	---	---
4				---	---	1930	---	1740	2010	---	---	---
5				---	---	1980	---	1930	1990	2340	---	---
6				---	3030	1950	---	2130	1960	---	---	---
7				---	---	2010	---	2050	---	---	---	---
8				---	---	1910	---	1960	---	---	---	2360
9				---	---	2430	---	1960	1980	---	4720	727
10				---	---	2430	---	1940	700	---	---	2050
11				---	---	2460	---	1960	1310	---	---	1270
12				---	---	2680	---	1930	2110	---	---	1560
13				---	---	2910	---	1940	2740	---	---	1150
14				---	---	---	---	1880	2250	---	2300	1240
15				2560	---	---	---	1860	---	---	3030	1280
16				2560	---	---	---	1860	2090	---	3030	1320
17				2580	3010	---	---	1800	2260	---	---	1400
18				2190	2460	---	---	1990	---	---	---	1160
19				2190	2050	---	---	1940	---	---	2230	1010
20				2030	1990	---	---	2050	---	---	2510	---
21				1970	1990	---	---	2070	---	---	---	---
22				2020	2070	---	---	2070	---	770	---	---
23				---	1710	---	4690	2030	---	---	---	---
24				1970	1710	---	1720	1930	---	---	---	---
25				---	1750	---	1460	1950	---	---	---	---
26				---	1780	---	1430	1920	---	---	---	---
27				---	1890	---	1440	1890	---	---	---	---
28				---	1960	---	1370	1840	---	---	---	---
29				1010	2480	---	1300	1800	---	---	---	---
30				2610	---	---	1190	1790	---	---	---	---
31				2730	---	---	---	1840	---	---	---	---
MEAN				2340	2130	2260	1830	1870	1930	1560	2970	1380
WTR YR 1980	MEAN	2000		MAX	4720	MIN	700					

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	OCT	NOV	DEC	JAN	ONCE-DAILY		APR	MAY	JUN	JUL	AUG	SEP
					FEB	MAR						
1				---	---	11.0	---	15.0	17.0	---	---	---
2				---	---	9.0	---	9.0	20.0	---	---	---
3				---	---	8.0	---	13.0	23.0	---	---	---
4				---	---	9.0	---	15.0	23.5	---	---	---
5				---	---	11.0	---	18.0	23.0	22.0	---	---
6				---	9.0	11.0	---	19.0	13.0	---	---	---
7				---	---	9.5	---	20.0	---	---	---	---
8				---	---	5.0	---	21.0	---	---	---	25.0
9				---	---	14.0	---	17.5	21.0	---	18.0	16.0
10				---	---	9.0	---	12.0	19.5	---	---	17.0
11				---	---	11.0	---	17.0	21.0	---	---	20.0
12				---	---	10.0	---	16.0	23.0	---	---	20.0
13				---	---	14.0	---	17.0	18.0	---	---	14.0
14				---	---	---	---	17.0	20.0	---	18.5	22.0
15				6.0	---	---	---	13.0	---	---	21.0	23.0
16				3.0	---	---	---	9.0	27.0	---	17.0	22.0
17				3.0	10.0	---	---	17.0	26.0	---	---	22.0
18				7.5	7.0	---	---	15.0	---	---	---	23.0
19				5.0	8.0	---	---	22.5	---	---	23.0	24.0
20				5.0	8.0	---	---	24.0	---	---	24.0	---
21				6.0	7.0	---	---	25.0	---	---	---	---
22				3.0	8.0	---	---	23.0	---	26.0	---	---
23				---	8.0	---	15.0	21.0	---	---	---	---
24				4.0	10.0	---	10.5	15.0	---	---	---	---
25				---	9.0	---	11.5	17.0	---	---	---	---
26				---	10.5	---	8.0	18.0	---	---	---	---
27				---	11.0	---	14.0	18.0	---	---	---	---
28				---	12.0	---	16.5	23.0	---	---	---	---
29				7.0	10.0	---	14.0	19.0	---	---	---	---
30				8.5	---	---	14.0	20.0	---	---	---	---
31				9.5	---	---	---	19.0	---	---	---	---
MEAN				5.5	9.0	10.0	13.0	17.5	21.0	24.0	20.5	20.5
WTR YR 1980	MEAN	15.0		MAX	27.0	MIN	3.0					

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN CONCENTRATION		MEAN CONCENTRATION		MEAN CONCENTRATION		MEAN CONCENTRATION		MEAN CONCENTRATION		MEAN CONCENTRATION	
	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	0	.00	0	.00	0	.00	0	.00	0	.0	44500	1020
2	0	.00	0	.00	0	.00	0	.00	0	.0	47300	6030
3	0	.00	0	.00	0	.00	0	.00	0	.0	56000	5440
4	0	.00	0	.00	0	.00	0	.00	0	.0	55500	3900
5	0	.00	0	.00	0	.00	0	.00	19000	51	52500	2980
6	0	.00	0	.00	0	.00	0	.00	18000	194	49300	2400
7	0	.00	0	.00	0	.00	0	.00	16000	43	42400	1830
8	0	.00	15000	81	0	.00	0	.00	0	.0	42700	1500
9	0	.00	8000	22	0	.00	0	.00	0	.0	35200	1050
10	0	.00	87300	25700	0	.00	0	.00	0	.0	33000	829
11	0	.00	78100	4220	0	.00	0	.00	0	.0	33700	746
12	0	.00	51000	688	0	.00	0	.00	19000	15	33000	650
13	0	.00	26300	213	0	.00	0	.00	15500	13	26000	140
14	0	.00	14000	19	0	.00	0	.00	10500	595	0	.00
15	0	.00	8100	4.4	0	.00	36800	199	8500	50	0	.00
16	0	.00	0	.00	0	.00	37000	499	26300	256	0	.00
17	0	.00	0	.00	0	.00	45500	6140	45500	13100	0	.00
18	0	.00	0	.00	0	.00	76300	14400	138000	59300	0	.00
19	0	.00	0	.00	0	.00	78000	21100	92000	16400	0	.00
20	0	.00	0	.00	0	.00	66600	8990	80000	9940	0	.00
21	0	.00	0	.00	0	.00	55000	6680	94800	21100	0	.00
22	0	.00	0	.00	0	.00	46000	6210	109000	41800	0	.00
23	0	.00	0	.00	0	.00	46000	621	74800	19400	0	.00
24	0	.00	0	.00	0	.00	0	.00	74000	8990	0	.00
25	0	.00	0	.00	0	.00	0	.00	67400	5460	0	.00
26	0	.00	0	.00	0	.00	0	.00	56000	3780	0	.00
27	0	.00	0	.00	0	.00	0	.00	51000	2480	0	.00
28	0	.00	0	.00	0	.00	0	.00	51000	1930	0	.00
29	0	.00	0	.00	0	.00	24300	66	45000	1340	0	.00
30	0	.00	0	.00	0	.00	23800	193	---	---	0	.00
31	0	.00	---	---	0	.00	22000	297	---	---	0	.00
TOTAL	---	0.00	---	30947.40	---	0.00	---	65395.00	---	206237.0	---	28515.00

[illegible]

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 mi² (3,570 km²), 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 hm²) above station.

AVERAGE DISCHARGE.--33 years, 14.9 ft³/s (0.422 m³/s), 10,800 acre-ft/yr (13.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,200 ft³/s (1,030 m³/s) July 31, 1965, gage height, 5.54 ft (1.689 m), from floodmarks, present site and datum, from rating curve extended above 900 ft³/s (26 m³/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 ft³/s or 776 m³/s, by slope-area method), from reports of State Engineer.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
June 10	1630	*15,300 433	5.35 1.631	Sept. 9	2030	8,680 246	4.79 1.460

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
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	5.1	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.7	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.27	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	37	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	73	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	50	356
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	74	150
9	.00	.00	.00	.00	.00	.00	.00	.00	312	.00	88	1360
10	.00	.00	.00	.00	.00	.00	.00	.00	50	.00	175	880
11	.00	.00	.00	.00	.00	.00	.00	.00	10	.00	30	555
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	50
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	9.2	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.63	20	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	80	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.6	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.29	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	11	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	162	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	20	.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	.82	.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	189	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	30	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	372.00	10.65	1052.96	3351.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	12.4	.34	34.0	112
MAX	.00	.00	.00	.00	.00	.00	.00	.00	312	9.2	189	1360
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	738	21	2090	6650

CAL YR 1979 TOTAL 254.18 MEAN .70 MAX 99 MIN .00 AC-FT 504
WTR YR 1980 TOTAL 4786.61 MEAN 13.1 MAX 1360 MIN .00 AC-FT 9490

PERIOD OF RECORD.--Water years 1948 to current year.

REMARKS.--Samples are collected when flow is observed on this ephemeral stream.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS 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)	
AUG 05...	1600	190	1440	7.8	29.0	490	66	140	33	150	
DATE	TIME	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY (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)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
AUG 05...	3.0	6.9	420	300	56	.6	23	962	160	<10	
INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980											

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (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)
AUG 05...	1600	190	29.0	158000	81100	88
SEP 11...	1300	605	16.0	85000	139000	83

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 poor. 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 km²). Alamillo Acequia and 3 other smaller ditches divert water from canal above station for

irrigation of about 400 acres (2 km²). Discharge records collected at the canal heading from October 1964 to

September 1965 indicate that 7,770 acre-ft (9.58 hm³) or 9% of the initial canal flow was diverted before

reaching the regular gaging station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 274 ft³/s (7.76 m³/s) June 22, 1980; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	156	23	37	29	26	203	213	206	269	127	171
2	155	60	11	36	1.5	26	189	214	212	267	132	151
3	142	.00	14	34	1.5	52	203	213	217	241	204	133
4	151	.00	89	33	6.4	78	207	216	220	236	170	125
5	145	.00	56	34	14	79	210	212	226	253	208	145
6	163	.00	31	34	35	87	211	212	222	260	212	156
7	160	.00	33	32	46	85	213	216	228	256	189	166
8	162	.00	28	33	39	78	208	217	232	271	185	155
9	159	.00	30	32	27	93	210	217	213	269	184	107
10	168	.00	33	31	20	106	211	216	129	265	182	77
11	189	.00	46	31	18	105	221	215	165	262	178	76
12	194	.00	58	32	16	118	212	216	212	268	181	75
13	186	.00	58	32	14	131	212	216	232	266	188	73
14	178	.00	65	32	12	137	211	214	246	258	135	73
15	170	.00	73	37	12	132	209	233	244	245	118	72
16	173	.00	71	42	13	127	210	218	244	270	96	72
17	181	.00	68	41	12	138	224	235	251	272	84	72
18	183	.00	61	39	12	142	228	251	272	264	105	72
19	183	.00	54	38	9.0	151	229	249	270	257	115	79
20	181	59	47	38	26	144	230	244	271	251	118	87
21	161	88	102	38	33	160	230	247	270	228	140	92
22	166	65	180	37	34	167	233	243	274	199	152	91
23	172	51	75	37	33	168	233	244	272	190	150	95
24	155	58	51	36	31	182	231	242	266	237	146	91
25	145	45	53	35	30	188	225	241	256	243	163	86
26	143	45	78	35	32	191	212	231	270	234	160	96
27	141	46	88	35	31	189	211	220	271	240	164	117
28	143	63	91	34	29	190	211	216	269	226	173	108
29	144	62	72	34	25	196	212	215	273	220	163	124
30	146	32	48	34	---	194	209	215	269	198	148	142
31	164	---	40	34	---	183	---	214	---	150	158	---
TOTAL	5056	830.00	1827	1087	641.4	4043	6458	6965	7202	7565	4828	3179
MEAN	163	27.7	58.9	35.1	22.1	130	215	225	240	244	156	106
MAX	194	156	180	42	46	196	233	251	274	272	212	171
MIN	141	.00	11	31	1.5	26	189	212	129	150	84	72
AC-FT	10030	1650	3620	2160	1270	8020	12810	13820	14290	15010	9580	6310
CAL YR 1979	TOTAL	52567.00	MEAN 144	MAX 259	MIN .00	AC-FT 104300						
WTR YR 1980	TOTAL	49681.40	MEAN 136	MAX 274	MIN .00	AC-FT 98540						

08354800 RIO GRANDE CONVEYANCE CHANNEL AT 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 ft³/s (57 m³/s). For combined monthly flow in acre-ft of this channel, floodway, and Socorro main canal north see tabulation below daily table for station 08354900.

EXTREMES FOR PERIOD OF RECORD: Maximum daily discharge, 1,950 ft³/s (55.2 m³/s) May 12, 13, 1966; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	983	1660	814	919	1280	961	1600	1610	1520	27	35
2	32	1470	1570	786	932	1180	824	1600	1600	1470	29	32
3	29	1590	1520	745	964	1280	803	1600	1580	1460	24	30
4	24	1600	1550	745	991	1190	632	1600	1600	1440	22	8.5
5	25	1560	1530	799	996	1170	531	1600	1600	1490	175	8.4
6	74	1620	1560	795	956	1200	382	1620	1600	1480	163	20
7	102	1660	1570	762	952	1180	389	1610	1610	1460	229	213
8	185	1690	1570	730	951	1100	375	1620	1620	1470	285	201
9	230	1730	1580	745	976	1050	399	1640	1580	1470	283	900
10	178	1780	1580	793	950	1050	438	1660	1590	1480	430	1590
11	222	1750	1600	851	948	816	519	1670	1590	1410	230	1560
12	271	1740	1610	904	1010	655	666	1670	1600	1120	264	1560
13	270	1760	1630	944	922	664	1400	1670	1580	908	271	1310
14	222	1700	1640	830	908	723	1660	1710	1600	750	485	788
15	211	1720	1670	860	952	713	1590	1710	1590	775	1420	726
16	146	1730	1650	938	985	557	1110	1670	1590	495	915	609
17	121	1700	1660	922	1120	646	894	1660	1590	331	810	506
18	84	1660	1650	942	1180	566	718	1690	1600	260	681	328
19	83	1600	1650	933	1040	502	961	1650	1630	120	879	218
20	78	1620	1640	972	1080	512	1580	1640	1590	100	444	211
21	162	1600	1640	927	1150	529	1610	1640	1600	75	278	161
22	152	1580	1680	965	1200	522	1610	1650	1600	60	189	106
23	170	1590	1600	965	1200	470	1610	1660	1600	50	146	74
24	169	1660	1600	893	1120	473	1600	1630	1620	45	96	30
25	140	1590	1620	889	1150	496	1610	1610	1510	33	76	20
26	129	1560	1690	915	1140	574	1610	1620	1490	32	46	15
27	124	1580	1760	924	1000	569	1590	1610	1510	32	48	12
28	89	1690	1700	868	974	581	1530	1590	1520	42	151	10
29	141	1710	1570	809	1180	722	1550	1600	1480	30	75	10
30	226	1690	1360	854	---	796	1590	1600	1510	30	60	9.7
31	551	---	981	857	---	470	---	1610	---	28	40	---
TOTAL	4667	48913	49291	26676	29846	24236	32742	50710	47390	21466	9271	11301.6
MEAN	151	1630	1590	861	1029	782	1091	1636	1580	692	299	377
MAX	551	1780	1760	972	1200	1280	1660	1710	1630	1520	1420	1590
MIN	24	983	981	730	908	470	375	1590	1480	28	22	8.4
AC-FT	9260	97020	97770	52910	59200	48070	64940	100600	94000	42580	18390	22420
CAL YR 1979	TOTAL	407329.0	MEAN	1116	MAX	1790	MIN	19	AC-FT	807900		
WTR YR 1980	TOTAL	356509.6	MEAN	974	MAX	1780	MIN	8.4	AC-FT	707100		

RIO GRANDE BASIN
08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued
WATER-QUALITY RECORDS

LOCATION.--Samples collected about 100 ft (30 m) downstream from discharge station.

PERIOD OF RECORD.--Water years 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, 1,700 micromhos Sept. 7; minimum daily, 256 micromhos June 19.

WATER TEMPERATURES: Maximum, 31.0°C July 16, 18; minimum, 3.5°C Dec. 18.

SEDIMENT CONCENTRATIONS: Maximum daily, 53,600 mg/L Sept. 8; minimum daily, 121 mg/L Apr. 9.

SEDIMENT LOADS: Maximum daily, 170,000 tons (154,000 tonnes) Sept. 10; minimum daily, 4.6 ton (4.2 tonnes) Sept. 28.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)
OCT 25...	1125	131	670	8.4	17.5	13.0	53	9.1
NOV 20...	1120	1640	422	8.1	7.0	6.5	170	10.5
DEC 18...	1218	1670	458	8.2	10.0	3.5	100	11.2
JAN 15...	1215	858	540	8.1	12.0	9.0	45	9.7
FEB 21...	1221	1130	584	8.2	13.0	8.0	1000	10.0
MAR 20...	1320	555	544	8.2	19.0	13.0	60	9.2
APR 16...	1216	1170	492	8.2	26.5	18.5	80	7.6
MAY 13...	1313	1770	319	7.5	22.5	15.0	450	8.3
JUN 19...	1219	1640	256	8.0	30.0	21.5	120	7.3
JUL 17...	1300	333	419	8.7	34.0	26.5	48	7.6
AUG 21...	1321	278	690	8.6	34.5	25.0	230	7.1
SEP 18...	1218	331	740	8.6	29.0	20.5	300	7.7

DATE	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, 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, ORTHOPH OSPHATE DISSOL. (MG/L AS P) (00671)
OCT 25...	21	283	.25	.29	.100	.90	1.3	.330	.200
NOV 20...	58	548	.55	.50	.050	.44	1.0	.800	.210
DEC 18...	26	576	.52	.48	.120	.84	1.5	.600	.210
JAN 15...	18	290	.81	.78	.130	1.1	2.0	.460	.300
FEB 21...	77	2520	.97	.96	.070	2.3	3.4	1.400	.310
MAR 20...	10	166	.85	.84	.100	.74	1.7	.580	.420
APR 16...	24	510	.56	.56	.060	1.1	1.8	.720	.450
MAY 13...	48	752	.28	.28	.060	1.4	1.8	.580	.090
JUN 19...	--	276	.28	.21	.060	.90	1.2	.440	.160
JUL 17...	34	140	.46	.46	.030	.97	1.5	.450	.290
AUG 21...	66	1560	.77	.58	.050	1.6	2.4	1.100	.320
SEP 18...	13	1640	.71	.71	.070	1.8	2.6	2.100	.310

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)
------	------	-------------------------------------------------------------------------------	-----------------------------------------------------------------------------	---------------------------------------------------------------------------------	----------------------------------------------------------------------------	--------------------------------------------------------------------------------	-----------------------------------------------------------------------	-------------------------------------------------------------------------------

AUG 21...	1321	.4	7.0	13	160	2	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)

AUG 21...		0	0	6400	10	55	.01	3
--------------	--	---	---	------	----	----	-----	---

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	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)
------	------	-------------------------------------------------------------------------------	-------------------------------------------------------------------------	-------------------------------------------------------------------------	--------------------------------------------------------------------------	--------------------------------------------------------------------------	----------------------------------------------------------------------------	----------------------------------------------------------------------------	----------------------------------------------------------------------------	--------------------------------------------------------------------

MAY 13...	1313	752	<2.5	32	3.6	30	3.4	29	.07	1.5
--------------	------	-----	------	----	-----	----	-----	----	-----	-----

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
------	------	-----------------------------------	---------------------------------------	-----------------------------------------------	------------------------------------	------------------------------------	------------------------------------	----------------------------------------------

AUG 21...	1321	.00	.00	.0	.00	.00	.00	.02
--------------	------	-----	-----	----	-----	-----	-----	-----

DATE	TIME	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, TOTAL (UG/L) (39388)	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- OKY- CHLOR, TOTAL (UG/L) (39480)	METHYL PARA- THION, TOTAL (UG/L) (39600)
------	------	---------------------------------------------	------------------------------------------------	---------------------------------------	------------------------------------------------	----------------------------------------------------------	---------------------------------------	-----------------------------------------------	-------------------------------------------------------	---------------------------------------------------------

AUG 21...		.00	.00	.00	.00	.00	.00	.00	.00	.00
--------------	--	-----	-----	-----	-----	-----	-----	-----	-----	-----

DATE	TIME	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)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
------	------	--------------------------------------------------------	-----------------------------------------------	-----------------------------------------------	---------------------------------------------	---------------------------------------	---------------------------------------	--------------------------------------------------------------------------	--------------------------------------

AUG 21...		.00	.00	0	.00	.00	.00	.0	.00
--------------	--	-----	-----	---	-----	-----	-----	----	-----

RIO GRANDE BASIN

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCOCI, FECAL, KP AGAR (COLS./100 ML) (31673)
OCT 25...	1125	200	500
NOV 20...	1120	270	900
DEC 18...	1218	56	480
JAN 15...	1215	360	370
FEB 21...	1221	2000	2400
MAR 20...	1320	41	200
APR 16...	1216	270	300
MAY 13...	1313	140	240
JUN 19...	1219	150	760
JUL 17...	1300	36	56
AUG 21...	1321	1200	800
SEP 18...	1218	930	1000

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE, WATER (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (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 25...	1125	131	13.0	4150	1470	--	--	--	--	--
NOV 11...	1530	1760	11.0	5580	26500	42	51	--	64	--
NOV 20...	1120	1640	6.5	3850	17000	--	--	--	--	--
DEC 18...	1218	1670	3.5	8100	36500	3	3	--	4	--
JAN 15...	1215	858	9.0	6430	14900	1	1	--	2	--
JAN 18...	1550	952	9.0	12200	31400	44	49	--	62	--
FEB 21...	1221	1130	8.0	4180	12800	37	41	--	52	--
MAR 03...	1635	1260	10.0	4220	14400	39	44	--	60	--
MAR 20...	1320	555	13.0	394	590	19	21	--	30	--
APR 16...	1216	1170	18.5	1470	4640	7	7	--	12	--
MAY 13...	1313	1770	15.0	4580	21900	11	13	--	17	--
MAY 26...	1515	1630	21.0	6910	30400	13	14	--	20	--
JUN 19...	1219	1640	21.5	2560	11300	6	7	--	9	--
JUL 04...	0745	1390	24.0	24800	93100	45	57	--	76	--
JUL 17...	1300	333	26.5	1130	1020	9	10	12	12	14
JUL 22...	1930	60	29.0	4170	676	74	93	--	98	--
AUG 05...	1615	72	29.0	56700	11000	58	74	--	96	--
AUG 21...	1321	278	25.0	11100	8330	14	14	--	16	--
AUG 28...	1950	86	28.0	24000	5570	74	87	--	95	--
SEP 08...	1640	152	27.0	54900	22500	44	52	--	68	--
SEP 18...	1218	331	20.5	14200	12700	11	12	--	13	--

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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. FALL DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70335)
OCT 25...	7	17	56	91	100	--	--	--	--	--
NOV 11...	79	92	99	100	--	--	--	--	--	--
20...	21	49	91	100	--	--	--	--	--	--
DEC 18...	13	40	89	100	--	--	--	--	--	--
JAN 15...	5	21	78	98	100	--	--	--	--	--
18...	65	73	95	100	--	--	--	--	--	--
FEB 21...	61	74	95	100	--	--	--	--	--	--
MAR 03...	69	72	92	99	100	--	--	--	--	--
20...	41	76	99	100	--	--	--	--	--	--
APR 16...	30	57	93	100	--	--	--	--	--	--
MAY 13...	26	43	80	98	100	--	--	--	--	--
26...	33	62	96	100	--	--	--	--	--	--
JUN 19...	21	50	89	100	--	--	--	--	--	--
JUL 04...	89	94	99	100	--	--	--	--	--	--
17...	16	23	67	96	100	--	--	--	--	--
22...	100	--	--	--	--	--	--	--	--	--
AUG 05...	100	--	--	--	--	--	--	--	--	--
21...	20	25	60	94	100	--	--	--	--	--
28...	--	--	--	--	--	99	99	99	99	100
SEP 08...	91	97	100	--	--	--	--	--	--	--
18...	17	26	59	93	100	--	--	--	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	712	505	531	616	642	492	625	443	311	346	778	709
2	692	502	489	617	560	547	524	440	310	340	778	782
3	790	515	529	607	568	612	570	418	302	356	716	794
4	746	496	507	584	589	580	575	412	300	820	722	744
5	767	512	466	572	596	504	601	407	297	434	1360	747
6	710	504	477	555	560	601	631	402	294	384	836	1580
7	648	486	471	588	567	538	640	396	294	319	749	1700
8	565	473	461	579	588	580	643	392	296	307	936	900
9	603	489	495	588	571	537	623	388	286	299	1090	741
10	567	793	444	571	602	548	617	379	282	307	783	989
11	568	610	472	574	592	536	609	380	284	313	800	880
12	530	555	462	567	568	601	588	379	290	328	758	810
13	563	512	462	555	600	555	533	348	292	380	622	797
14	540	510	448	570	597	603	525	352	288	381	551	788
15	579	484	468	597	540	561	520	336	283	397	581	790
16	610	487	460	573	600	622	508	343	273	412	659	695
17	605	500	471	574	825	565	569	355	268	426	549	693
18	605	488	473	782	855	610	600	359	266	521	567	778
19	640	487	488	646	680	578	609	367	285	527	636	753
20	628	490	465	617	670	621	557	350	293	-690	665	745
21	604	515	487	600	750	611	550	344	307	739	725	780
22	630	482	462	620	733	615	532	348	308	800	745	835
23	636	502	502	572	740	645	526	345	310	821	752	873
24	626	500	484	605	686	635	620	347	318	705	775	864
25	710	514	512	622	620	653	556	345	327	697	828	784
26	704	490	492	584	628	634	530	332	328	675	817	804
27	695	527	465	595	613	631	501	325	319	669	926	842
28	708	515	472	616	596	620	492	329	340	661	888	842
29	707	517	512	636	520	605	505	320	341	725	866	849
30	635	492	477	560	---	630	469	318	337	723	855	800
31	541	---	544	589	---	677	---	325	---	763	648	---
MEAN	641	515	482	598	630	592	565	365	301	525	773	856
WTR YR 1980	MEAN	570	MAX	1700	MIN	266						

RIO GRANDE BASIN
08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued
WATER-QUALITY RECORDS

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	12.0	5.0	6.0	12.5	12.0	13.0	18.0	20.0	27.0	29.0	26.0
2	23.0	6.0	6.5	6.0	12.0	10.0	11.0	18.0	20.0	29.0	27.0	27.0
3	24.0	12.0	8.0	6.0	12.0	10.0	12.0	16.0	20.0	27.0	27.0	28.0
4	21.0	13.0	9.0	7.0	12.0	11.0	11.0	20.0	21.0	24.0	26.0	25.0
5	23.0	12.0	9.0	6.0	11.0	13.0	18.0	18.0	22.0	28.0	29.0	23.0
6	22.0	11.0	9.0	5.0	10.0	14.0	18.0	20.0	21.0	28.0	30.0	25.0
7	23.0	12.0	9.0	6.0	9.5	12.0	17.0	20.0	23.0	29.0	28.0	13.0
8	23.0	12.0	10.0	9.0	8.0	13.0	18.0	21.0	22.0	27.0	27.0	27.0
9	18.0	9.0	12.0	6.0	5.0	13.5	19.0	19.5	21.0	26.0	27.0	18.0
10	20.0	12.0	9.0	9.0	8.0	11.0	20.0	18.0	21.0	30.0	28.0	22.0
11	22.0	11.0	9.5	6.0	10.0	11.0	15.0	16.0	23.0	29.0	28.0	23.0
12	21.0	10.0	10.0	9.0	10.0	13.0	9.0	18.0	23.0	26.0	23.0	21.0
13	20.0	10.0	7.0	12.0	10.0	15.0	14.0	17.0	24.0	26.0	25.0	22.0
14	19.0	11.0	6.5	10.5	10.5	15.0	17.0	18.0	22.0	27.0	24.0	22.0
15	22.0	11.0	7.0	11.0	10.0	16.0	17.0	16.0	19.0	30.0	25.0	25.0
16	21.0	11.0	7.0	11.0	13.0	13.0	20.0	16.0	25.0	31.0	26.0	25.0
17	20.0	11.0	6.0	11.0	10.0	13.0	21.0	18.0	25.0	25.0	28.0	26.0
18	19.0	12.0	6.0	9.0	12.0	13.0	21.5	18.0	25.0	31.0	26.0	25.0
19	20.0	10.0	6.0	8.0	11.0	12.0	23.0	19.0	24.0	25.0	25.0	26.0
20	20.0	8.0	6.0	5.0	11.0	13.5	21.0	21.0	21.0	26.0	27.0	12.0
21	16.0	6.0	7.0	8.0	10.0	15.0	18.0	21.5	23.0	27.0	29.0	23.0
22	16.0	6.0	6.0	7.0	12.0	15.0	20.0	21.0	25.0	29.0	25.0	22.0
23	17.0	5.0	6.0	7.0	12.5	12.0	17.0	22.0	25.5	29.0	26.0	21.0
24	18.5	6.0	5.5	8.0	13.0	12.0	12.0	21.0	26.0	29.0	24.0	23.0
25	20.0	8.0	5.0	8.0	13.0	14.0	13.5	20.0	27.0	30.0	27.0	19.0
26	20.0	10.0	6.0	10.0	14.0	15.0	16.0	21.0	26.0	30.0	23.0	18.0
27	19.0	9.0	7.0	9.0	15.0	13.0	18.0	19.0	24.0	29.0	27.0	18.0
28	10.0	6.0	5.5	10.0	16.0	9.0	18.0	21.0	26.0	26.0	28.0	23.0
29	13.0	5.0	5.0	10.0	15.0	12.0	16.0	20.0	27.0	29.0	26.0	23.0
30	10.0	5.5	5.0	10.0	---	14.0	15.0	20.0	27.0	30.0	27.0	25.0
31	11.0	---	6.0	12.0	---	10.0	---	21.0	---	25.0	27.0	---
MEAN	19.0	9.5	7.0	8.5	11.5	12.5	16.5	19.0	23.5	28.0	26.5	22.5
WTR YR 1980	MEAN	17.0	MAX	31.0	MIN	5.0						

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
1	3400	248	7500	21300	3660	16400	8880	19500	2610	6480	2450	8470
2	3110	269	5550	22000	4330	18400	7190	15300	2610	6570	2760	8790
3	2100	164	3790	16300	4250	17400	7010	14100	2430	6320	4220	14600
4	3240	210	3080	13300	3790	15900	7620	15300	2330	6230	2780	8930
5	2300	155	3540	14900	3500	14500	8240	17800	2370	6370	2330	7360
6	1860	372	2890	12600	4120	17400	6120	13100	2200	5680	2070	6710
7	1690	465	2450	11000	3360	14200	6150	12700	2800	7200	1710	5450
8	1950	974	2880	13100	2640	11200	4740	9340	3230	8290	1770	5260
9	4030	2500	2910	13600	3630	15500	4970	10000	3070	8090	1530	4340
10	2820	1360	9500	45700	3190	13600	5270	11300	2550	6540	1000	2840
11	2990	1790	6700	31700	3860	16700	4410	10100	2110	5400	815	1800
12	3110	2280	4200	19700	4050	17600	5150	12600	2450	6680	526	930
13	2950	2150	3500	16600	3900	17200	4350	11100	2730	6800	346	620
14	1830	1100	3020	13900	4050	17900	4440	9950	2370	5810	238	465
15	2040	1170	2780	12900	3930	17700	5990	13900	2730	7020	225	433
16	3340	1320	2740	12800	4260	19000	4630	11700	1920	5110	219	329
17	2150	702	3540	16200	4020	18000	5700	14200	14600	44200	229	399
18	2010	456	3450	15500	6120	27300	11900	30300	22800	72600	322	492
19	2360	529	2850	12300	4480	20000	9880	24900	10100	28400	199	270
20	2000	420	2840	12400	3800	16800	7380	19400	5900	17200	258	357
21	4120	1820	3770	16300	4400	19500	6260	15700	17500	54300	228	326
22	2750	1130	4480	19100	3400	15400	7050	18400	28300	91700	282	397
23	2450	1120	3530	15200	2190	9460	5910	15400	11300	36600	200	254
24	2680	1220	4290	19200	2250	9720	4660	11200	6650	20100	225	287
25	3150	1190	3730	16000	2710	11900	4130	9910	4100	12700	578	774
26	2880	1000	2830	11900	2750	12500	3880	9590	3650	11200	265	411
27	6120	2050	3420	14600	4610	21900	2990	7460	4090	11000	220	338
28	2780	668	3700	16900	4450	20400	3850	9020	3200	8420	160	251
29	2810	1070	3620	16700	3990	16900	3800	8300	2670	8510	242	472
30	2800	1710	3290	15000	3800	14000	2750	6340	---	---	198	426
31	2790	4150	---	---	6060	16100	3160	7310	---	---	209	265
TOTAL	---	35762	---	508700	---	510480	---	415220	---	521520	---	83046

WATER-QUALITY RECORDS

DAY	MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (MG/L)	
	LOADS (T/DAY)		LOADS (T/DAY)		LOADS (T/DAY)		LOADS (T/DAY)		LOADS (T/DAY)		LOADS (T/DAY)	
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	344	893	6850	29600	4770	20700	1590	6530	151	11	571	54
2	651	1450	5540	23900	4750	20500	1900	7540	140	11	275	24
3	320	694	5800	25100	3350	14300	2230	8790	3150	204	190	15
4	260	444	6450	27900	4100	17700	18900	73500	1590	94	340	7.8
5	203	291	5630	24300	3740	16200	8250	33200	38900	30700	450	10
6	205	211	5450	23800	2350	10200	3330	13300	28200	12400	4900	265
7	191	201	4750	20600	1400	6090	1800	7100	11500	7110	30300	22900
8	122	124	5920	25900	2960	12900	1800	7140	16600	15900	53600	32400
9	121	130	6480	28700	4500	19200	1550	6150	15400	11800	51000	135000
10	170	201	3300	14800	3470	14900	948	3790	30700	46800	39500	170000
11	221	310	2350	10600	3850	16500	290	1100	3420	2120	30200	127000
12	430	773	5840	26300	4610	19900	1140	3450	3830	2730	24500	103000
13	1580	5970	5180	23400	4260	18200	2830	6940	3700	2710	20500	72500
14	1970	8830	5440	25100	3750	16200	2500	5060	12700	18500	30200	64300
15	2270	9750	6900	31900	4360	18700	2250	4710	18000	69000	30700	62400
16	1850	5540	7850	35400	4200	18000	2130	2850	12900	31900	6500	10700
17	1280	3090	3950	17700	3550	15200	1380	1230	5600	12200	5150	7040
18	928	1800	3150	14400	3050	13200	1250	877	3250	5980	12300	10900
19	1580	4100	3430	15300	2550	11200	1430	463	15400	38400	5970	3510
20	2180	9300	4190	18600	1550	6650	520	140	4090	5330	5090	2900
21	1800	7820	3800	16800	1670	7210	329	67	6210	5130	4150	1800
22	1880	8170	2040	9090	2190	9460	2420	392	3970	2030	3500	1000
23	2180	9480	3280	14700	1850	7990	4300	580	2420	954	3400	679
24	5810	25100	6050	26600	1490	6520	2150	261	2000	518	2390	194
25	6260	27200	5490	23900	1850	7540	2440	217	10800	2220	732	40
26	5650	24600	6600	28900	1930	7760	1010	87	5800	720	509	21
27	5550	23800	7660	33300	1960	7990	320	28	10400	1350	300	9.7
28	4820	19900	4450	19100	2170	8910	1160	132	27100	14600	170	4.6
29	6500	27200	2770	12000	1960	7830	233	19	9000	1820	340	9.2
30	6980	30000	4250	18400	1730	7050	146	12	1200	194	1060	28
31	---	---	5480	23800	---	---	129	9.8	793	86	---	---
TOTAL	---	257372	---	689890	---	384700	---	195664.8	---	343522	---	82871

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 mi² (69,330 km²), approximately, including 2,940 mi² (7,610 km²) 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 ft³/s or 57 m³/s) and Socorro main canal north (about 200 ft³/s or 6 m³/s) is exceeded, during periods of silt sluicing, and when river silt load is excessive. Diversions above station for irrigation of about 760,000 acres (3,100 km²); this includes Socorro main canal north which bypasses station and irrigates about 8,000 acres (32 km²).

AVERAGE DISCHARGE.--22 years (water years 1937-58), 1,192 ft³/s (33.76 m³/s), 863,000 acre-ft/yr (1,060 hm³/yr), prior to construction of conveyance channel; does not include Socorro main canal north.

15 years (water years 1959-73), 911 ft³/s (25.80 m³/s), 660,000 acre-ft/yr (814 hm³/yr), combined flow of floodway, conveyance channel and Socorro main canal north prior to closure of Cochiti Dam.
7 years (water years 1974-80), 1,165 ft³/s (32.99 m³/s), 844,000 acre-ft/yr (1,040 hm³/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 ft³/s (776 m³/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, 14,300 ft³/s (405 m³/s) June 9, gage height, 11.64 ft (3.548 m); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	18	8.4	1.7	.33	.33	139	3190	5310	1380	27	3.2
2	4.2	38	4.2	1.5	.33	.33	14	2960	5060	1560	25	3.4
3	4.3	25	2.5	1.4	.33	.26	19	3060	4710	1530	21	3.4
4	4.4	61	1.4	1.0	.33	1.6	9.7	3210	4680	1160	16	3.8
5	4.3	35	.33	.50	.33	2.8	9.5	3190	4740	1220	21	3.8
6	6.5	44	.36	.40	.33	2.4	12	3130	4500	1510	14	3.8
7	7.2	68	.95	.33	.35	3.2	15	3450	4260	1520	8.1	27
8	6.1	158	1.2	.33	.26	2.2	9.7	4170	4010	1560	6.0	6.6
9	4.4	227	2.7	.33	.36	2.1	12	4470	4770	1240	3.1	1990
10	5.7	215	1.2	.33	.33	2.9	12	4140	4800	633	69	1270
11	6.4	196	1.3	.45	.33	4.0	21	4030	4610	103	1.9	1510
12	7.5	162	.49	.45	.33	6.7	27	4290	4480	207	1.7	574
13	5.7	338	1.0	.45	.29	7.6	181	4410	4430	228	1.7	96
14	5.1	65	1.2	.57	.22	11	76	4220	4360	211	3.8	5.9
15	4.3	151	.82	.45	.24	8.7	11	4810	4530	53	364	3.1
16	3.9	156	.66	.57	.24	8.3	16	5320	4460	38	7.7	1.7
17	4.1	81	.79	.57	.29	14	17	5110	3850	23	5.6	.59
18	4.3	46	.50	.57	1.2	13	11	5010	3870	18	23	.30
19	4.5	31	.46	.57	.81	20	44	4460	3750	24	101	.22
20	4.6	18	.41	.69	.96	14	50	4420	3480	21	7.9	.40
21	4.3	7.1	.39	.81	.63	14	69	4470	3100	21	8.8	.29
22	3.9	6.0	11	.69	.49	11	343	4460	2980	23	7.3	.22
23	3.4	6.2	55	.45	.35	12	1210	4660	2890	24	8.0	16
24	2.9	11	31	.21	.21	13	2010	4930	2620	28	8.7	51
25	2.5	6.4	33	.21	.20	17	3240	5100	2420	27	9.0	43
26	2.2	7.1	14	.21	.21	17	2960	5360	2400	27	7.6	42
27	2.4	9.4	39	.09	.21	13	3030	5420	1900	29	6.6	38
28	2.2	35	102	.21	.21	17	2980	5480	1490	28	3.8	35
29	4.4	74	28	.21	.33	33	3170	5500	1360	28	2.6	22
30	7.0	33	5.2	.21	---	23	3720	5600	1420	28	2.6	9.9
31	16	---	2.1	.21	---	13	---	5600	---	28	2.9	---
TOTAL	153.0	2328.2	351.56	16.67	11.03	308.42	23437.9	137630	111240	14530	796.4	5764.62
MEAN	4.94	77.6	11.3	.54	.38	9.95	781	4440	3708	469	25.7	192
MAX	16	338	102	1.7	1.2	.33	3720	5600	5310	1560	364	1990
MIN	2.2	6.0	.33	.09	.20	.26	9.5	2960	1360	.18	1.7	.22
AC-FT	303	4620	697	33	22	612	46490	273000	220600	28820	1580	11430
(+)	19590	103300	102100	55100	60490	56700	124200	387400	328900	86410	29550	40160

CAL YR 1979 TOTAL 394546.12 MEAN 1081 MAX 5600 MIN .00 AC-FT 782600 (+) MEAN 2341 AC-FT 1695000
WTR YR 1980 TOTAL 296567.80 MEAN 810 MAX 5600 MIN .09 AC-FT 588200 (+) MEAN 1920 AC-FT 1394000

(+) COMBINED FLOW, IN ACRE-FT, AND MEAN, IN CUBIC FEET PER SECOND, OF FLOODWAY, CONVEYANCE CHANNEL AND SOCORRO MAIN CANAL NORTH.

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, 1964-80), 0.0°C on many days during winter periods.

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 ton (0 tonne) on many days of most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,350 micromhos Aug. 5; minimum daily, 264 micromhos June 17.

WATER TEMPERATURES: Maximum, 31.0°C July 18; minimum, 5.0°C on several days in November to February.

SEDIMENT CONCENTRATIONS: Maximum daily, 68,400 mg/L Sept. 12; minimum daily, 10 mg/L Jan. 6.

SEDIMENT LOADS: Maximum daily, 422,000 tons (383,000 tonnes) Sept. 9; minimum daily, 0 ton (0 tonne) on several days in January and February.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (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										
11...	1515	182	11.0	4630	2280	56	74	--	87	--
FEB										
17...	1720	.29	10.0	7290	5.7	73	84	--	100	--
MAR										
04...	1625	.21	11.0	13500	7.7	21	22	--	43	--
APR										
28...	1950	3040	18.0	5910	48500	21	23	--	32	--
MAY										
10...	1800	3840	18.0	7910	82000	11	12	--	16	--
26...	1500	5380	21.0	3650	53000	20	24	--	31	--
28...	1215	5190	16.0	2480	34800	34	39	--	55	--
JUN										
18...	1215	3870	21.0	707	7390	32	38	--	45	--
JUL										
03...	1200	1690	25.0	349	1590	20	26	29	36	48
04...	0730	1160	24.0	24300	76100	55	61	--	86	--
22...	1915	24	29.0	4730	307	70	89	--	99	--
AUG										
05...	1600	74	29.0	58600	11700	58	69	--	96	--
SEP										
13...	1825	10	22.0	112000	3020	65	73	--	90	--
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. FALL DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70334)
NOV										
11...		--	--	--	--	--	99	100	--	--
FEB										
17...		--	--	--	--	--	--	--	--	--
MAR										
04...		78	96	100	--	--	--	--	--	--
APR										
28...		47	72	96	100	--	--	--	--	--
MAY										
10...		23	40	83	98	100	--	--	--	--
26...		49	62	96	100	--	--	--	--	--
28...		80	94	100	--	--	--	--	--	--
JUN										
18...		76	94	100	--	--	--	--	--	--
JUL										
03...		--	--	--	--	--	70	89	99	100
04...		98	99	100	--	--	--	--	--	--
22...		--	--	--	--	--	99	99	100	--
AUG										
05...		100	--	--	--	--	--	--	--	--
SEP										
13...		99	100	--	--	--	--	--	--	--

RIO GRANDE BASIN

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	BED MAT. FALL DIAM. % FINER THAN (80158)	BED MAT. FALL DIAM. % FINER THAN (80159)	BED MAT. FALL DIAM. % FINER THAN (80160)	BED MAT. FALL DIAM. % FINER THAN (80161)
JUL 03...	1200	1690	349	1590	21	80	99	100

TOTAL SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SEDI- MENT DISCH. TOTAL, SUSP.+ BEDLOAD (T/DAY) (80156)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOC- ITY, MEAN (FPS) (00055)
MAY 28...	1215	5190	16.0	2480	34800	35400	208	3.2	7.7
JUN 18...	1215	3870	21.0	707	7390	7760	207	3.3	5.7
JUL 03...	1200	1690	25.0	349	1590	2660	204	2.6	3.2

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	723	537	722	722	672	660	583	411	306	348	763	682
2	726	530	705	708	665	743	548	430	304	340	762	728
3	769	519	734	760	682	657	612	413	301	349	780	738
4	732	475	685	719	710	680	620	410	300	817	719	785
5	754	522	623	733	688	607	637	409	296	426	1350	798
6	700	478	631	720	670	672	661	403	291	374	815	974
7	673	487	586	718	686	612	673	396	292	280	651	1020
8	598	478	555	692	737	646	670	392	292	289	772	809
9	669	465	540	691	710	652	662	388	283	293	663	734
10	604	814	560	744	737	658	647	390	283	310	817	1010
11	619	592	641	721	686	562	637	382	282	328	735	880
12	591	519	621	712	743	623	622	380	291	334	683	908
13	596	475	661	700	712	587	542	346	292	380	618	928
14	588	487	573	691	724	594	539	354	285	382	537	830
15	605	476	586	686	704	587	637	337	278	409	494	809
16	650	480	630	717	711	639	568	338	269	425	607	736
17	646	506	575	707	747	589	647	357	264	450	547	737
18	661	477	697	664	740	630	671	351	277	549	586	612
19	720	484	691	652	694	616	628	352	285	560	586	714
20	673	555	696	670	710	622	573	350	301	684	645	772
21	723	540	747	666	700	609	561	347	308	734	692	777
22	707	639	496	698	715	644	541	345	308	802	714	753
23	728	663	470	716	722	664	526	343	310	815	747	833
24	707	754	452	675	748	664	613	347	316	688	749	895
25	755	765	573	657	660	633	550	345	328	673	793	770
26	742	659	578	666	730	606	527	329	328	668	792	839
27	750	597	448	700	695	606	519	334	319	660	820	849
28	752	505	424	720	732	606	520	331	343	654	793	850
29	772	505	490	693	706	637	504	323	347	711	768	908
30	762	497	692	661	---	594	466	317	336	716	759	878
31	569	---	692	663	---	642	---	323	---	751	614	---
MEAN	686	549	606	698	708	630	590	364	301	523	722	819
WTR YR 1980	MEAN	599	MAX	1350	MIN	264						

RIO GRANDE BASIN
08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM --- Continued
WATER-QUALITY RECORDS

255

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980												
DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	12.0	5.0	6.0	12.5	12.0	13.0	18.0	21.0	27.0	29.0	26.0
2	23.0	6.0	6.5	6.0	12.0	10.0	11.0	18.0	20.0	29.0	27.0	27.0
3	24.0	12.0	8.0	6.0	12.0	10.0	12.0	16.0	21.0	27.0	27.0	28.0
4	21.0	13.0	9.0	7.0	12.0	11.0	11.0	20.0	21.0	24.0	26.0	25.0
5	23.0	12.0	9.0	6.0	11.0	13.0	18.0	18.0	22.0	25.0	29.0	23.0
6	22.0	11.0	9.0	5.0	10.0	14.0	18.0	20.0	21.0	28.0	30.0	25.0
7	23.0	12.0	9.0	6.0	9.5	12.0	17.0	20.0	23.0	24.0	28.0	13.0
8	23.0	12.0	10.0	9.0	7.0	13.0	18.0	21.0	22.0	27.0	27.0	27.0
9	18.0	9.0	12.0	6.0	5.0	13.5	19.0	19.5	21.0	26.0	27.0	18.0
10	20.0	12.0	9.0	9.0	8.0	11.0	20.0	18.0	21.0	30.0	28.0	22.0
11	22.0	11.0	9.5	6.0	10.0	11.0	15.0	16.0	23.0	29.0	28.0	23.0
12	21.0	10.0	10.0	9.0	10.0	13.0	9.0	18.0	23.0	26.0	23.0	21.0
13	20.0	10.0	7.0	12.0	10.0	15.0	14.0	17.0	24.0	26.0	25.0	22.0
14	19.0	11.0	6.5	10.5	10.5	15.0	17.0	18.0	22.0	27.0	24.0	22.0
15	22.0	11.0	7.0	11.0	10.0	16.0	17.0	16.0	19.0	30.0	25.0	25.0
16	21.0	11.0	7.0	11.0	10.0	13.0	20.0	16.0	25.0	21.0	26.0	25.0
17	20.0	11.0	6.0	11.0	10.0	13.0	21.0	18.0	25.0	25.0	28.0	26.0
18	19.0	12.0	6.0	9.0	12.0	13.0	21.5	18.0	25.0	31.0	26.0	25.0
19	20.0	10.0	6.0	8.0	11.0	12.0	23.0	19.0	24.0	25.0	25.0	26.0
20	20.0	8.0	6.0	5.0	11.0	13.5	21.0	21.0	21.0	26.0	27.0	12.0
21	16.0	6.0	7.0	8.0	10.0	15.0	18.0	21.5	23.0	27.0	29.0	23.0
22	16.0	6.0	6.0	7.0	12.0	15.0	20.0	21.0	25.0	29.0	25.0	22.0
23	17.0	5.0	6.0	7.0	12.5	12.0	17.0	22.0	25.5	29.0	26.0	21.0
24	18.5	6.0	5.5	8.0	13.0	12.0	12.0	21.0	26.0	29.0	24.0	23.0
25	20.0	8.0	5.0	8.0	13.0	14.0	13.5	20.0	27.0	30.0	27.0	19.0
26	20.0	10.0	6.0	10.0	14.0	15.0	16.0	21.0	26.0	30.0	23.0	18.0
27	19.0	9.0	7.0	9.0	15.0	13.0	18.0	19.0	24.0	29.0	27.0	21.0
28	10.0	6.0	5.5	10.0	16.0	9.0	18.0	21.0	26.0	26.0	28.0	23.0
29	13.0	5.0	5.0	10.0	15.0	12.0	16.0	20.0	27.0	29.0	26.0	23.0
30	10.0	5.5	5.0	10.0	---	14.0	15.0	20.0	27.0	30.0	27.0	25.0
31	11.0	---	6.0	12.0	---	10.0	---	20.0	---	25.0	27.0	---
MEAN	19.0	9.5	7.0	8.5	11.0	12.5	16.5	19.0	23.5	27.5	26.5	22.5
WTR YR 1980		MEAN	17.0	MAX	31.0	MIN	5.0					

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980												
DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
1	121	1.4	544	26	49	1.1	26	.12	17	.02	186	.17
2	209	2.8	518	53	56	.64	26	.11	15	.01	160	.14
3	105	1.2	570	38	66	.45	22	.08	15	.01	1130	.79
4	73	.87	950	156	60	.23	29	.08	17	.02	9960	129
5	67	.78	599	57	76	.07	23	.03	18	.02	1490	11
6	100	1.8	399	47	727	.71	10	.01	17	.02	950	6.2
7	164	3.2	535	98	1070	2.7	13	.01	16	.02	620	5.4
8	195	3.2	796	381	131	.42	16	.01	14	.00	525	3.1
9	110	1.3	970	595	154	1.1	14	.01	17	.02	449	2.5
10	100	1.5	7420	5510	108	.35	15	.01	24	.02	282	2.2
11	120	2.1	5240	2770	80	.28	17	.02	20	.02	295	3.2
12	154	3.1	1590	695	64	.08	17	.02	22	.02	328	5.9
13	152	2.3	1620	1480	70	.19	18	.02	79	.06	301	6.2
14	155	2.1	915	161	91	.29	15	.02	22	.01	248	7.4
15	109	1.3	938	400	87	.19	14	.02	47	.03	222	5.2
16	75	.79	854	360	62	.11	12	.02	31	.02	145	3.2
17	67	.74	685	150	53	.11	14	.02	4280	3.4	133	5.2
18	63	.73	538	67	51	.07	18	.03	8000	26	99	3.5
19	93	1.1	641	65	45	.06	17	.03	2900	6.3	130	7.0
20	89	1.1	252	12	38	.04	16	.03	1550	4.0	247	9.3
21	124	1.4	200	3.8	35	.04	16	.03	1540	2.6	239	9.0
22	112	1.2	144	2.3	1210	92	17	.03	1300	1.7	166	4.9
23	93	.85	102	1.7	990	147	17	.02	794	.75	153	5.0
24	78	.61	70	2.1	250	21	16	.00	505	.29	2510	88
25	58	.39	58	1.0	103	9.2	15	.00	300	.16	1980	91
26	53	.31	72	1.4	80	3.0	16	.00	181	.10	265	12
27	48	.31	95	2.4	394	60	17	.00	224	.13	192	6.7
28	59	.35	243	23	840	231	18	.01	184	.10	195	9.0
29	188	2.2	394	79	138	10	15	.00	136	.12	187	17
30	135	2.6	223	20	146	2.0	14	.00	---	---	784	45
31	503	22	---	---	67	.38	17	.00	---	---	570	20
TOTAL	---	65.63	---	13257.7	---	584.81	---	0.79	---	45.97	---	524.20

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 ft³/s (57 m³/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 ft³/s (62.3 m³/s) May 14, 1966; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	.15	.34	.34	.30	.30	.35	37	78	152	3.1	1.4
2	.10	.16	.25	.34	.32	.30	.29	34	78	148	2.9	1.3
3	.29	.19	.30	.31	.30	.36	.25	24	78	139	2.8	1.3
4	.54	.21	.30	.33	.37	.42	.25	16	77	129	2.7	1.4
5	.48	.20	.30	.33	.35	.40	.20	11	77	112	2.8	1.6
6	.46	.21	.30	.36	.37	.52	.20	7.5	76	84	2.7	1.6
7	.35	.25	.30	.37	.43	.52	.15	5.7	76	67	2.5	1.8
8	.32	.31	.30	.33	.23	.63	.15	4.3	76	51	2.5	1.6
9	.34	.30	.30	.34	.27	.65	.15	3.9	76	37	2.5	2.2
10	.70	.31	.30	.35	.39	.75	.15	4.0	76	29	2.3	2.4
11	.54	.26	.30	.37	.39	.81	.20	4.2	76	24	2.2	3.3
12	.64	.29	.37	.37	.37	.87	.25	13	76	20	2.3	2.8
13	.59	.30	.34	.36	.37	.94	.37	38	76	15	2.2	1.3
14	.54	.34	.30	.37	.44	.93	.30	45	75	12	2.1	7.5
15	.30	.37	.30	.38	.44	1.0	.37	53	72	7.9	2.3	6.4
16	.08	.37	.30	.37	.31	1.0	.37	60	72	7.2	2.3	5.8
17	.06	.31	.30	.37	.35	1.1	.37	66	72	6.5	2.2	3.4
18	.06	.37	.30	.37	.34	1.1	.37	70	72	5.8	2.1	3.1
19	.07	.37	.30	.37	.32	1.3	.30	71	72	5.2	2.3	2.9
20	.06	.36	.33	.37	.37	1.2	.30	72	73	5.2	2.2	2.7
21	.08	.37	.41	.37	.33	1.1	.30	75	72	5.0	2.1	2.4
22	.07	.33	.36	.76	.34	.95	.37	75	72	4.9	2.1	2.4
23	.13	.37	.34	.44	.35	1.0	.30	74	72	4.7	2.3	2.3
24	.15	.37	.30	.37	.30	.97	.30	75	104	4.5	2.1	2.5
25	.15	.37	.35	.44	.30	.84	.37	75	114	4.3	2.1	2.4
26	.15	.37	.41	.37	.30	.75	.37	75	83	4.1	2.3	2.4
27	.15	.30	.47	.37	.31	.67	.37	75	86	3.7	2.1	2.5
28	.15	.30	.40	.30	.37	.54	2.6	76	143	3.5	1.9	2.3
29	.14	.30	.37	.29	.33	.58	19	77	146	3.4	1.8	2.0
30	.15	.37	.33	.31	---	.48	28	77	151	3.2	1.7	1.9
31	.15	---	.33	.30	---	.46	---	77	---	3.0	1.5	---
TOTAL	8.10	9.08	10.20	11.42	9.96	23.44	57.32	1470.6	2547	1101.1	71.0	145.5
MEAN	.26	.30	.33	.37	.34	.76	1.91	47.4	84.9	35.5	2.29	4.85
MAX	.70	.37	.47	.76	.44	1.3	.28	77	151	152	3.1	3.3
MIN	.06	.15	.25	.29	.23	.30	.15	3.9	72	3.0	1.5	1.3
AC-FT	16	18	20	23	20	46	114	2920	5050	2180	141	289
CAL YR 1979	TOTAL	3384.39	MEAN	9.27	MAX	63	MIN	.06	AC-FT	6710		
WTR YR 1980	TOTAL	5464.72	MEAN	14.9	MAX	152	MIN	.06	AC-FT	10840		

SEDIMENT LOADS: Maximum daily, 1,790 tons (1,620 tonnes) Sept. 11; minimum daily, .01 tons (.01 tonne) on several days in October and April.

[illegible]

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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- ORTHOPH, OSPHATE DISSOL. (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)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE (MG/L AS C) (00689)
OCT 25...	--	--	--	--	--	--	--	--	--	--	--	--
NOV 20...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 18...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 21...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 20...	--	--	--	--	--	--	--	--	--	--	--	--
APR 16...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 19...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 16...	.28	.100	.100	1.0	2.6	.210	.090	230	20	12	8.7	1.1
AUG 21...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 18...	--	--	--	--	--	--	--	--	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO) (01062)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)
JUL 16...	1145	230	20	6	0

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	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 AS CO) (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)
JUL 16...	1145	.0	11	96	5	1	1	0	5

DATE	TIME	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)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C) (00693)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C) (00687)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C) (00686)
JUL 16...	1600	10	570	.00	0	20	3.1	.7	2.4	

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 (PCI/L RADON METHOD (09511)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L) (80020)
JUL 16...	1145	<17	1.0	<5.9	1.1	<5.6	1.0	.07	2.6

RIO GRANDE BASIN
08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM --- Continued
WATER-QUALITY RECORDS

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
JUL 16...	1145	18	65

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	TIME	TOTAL CELLS/ML	DIVERSITY: DIVISION	CLASS	ORDER	FAMILY	GENUS	ORGANISM	CELLS /ML	PER- CENT
JUL 16, 80	1145	11000						CHLOROPHYTA (GREEN ALGAE)		
								..CHLOROPHYCEAE		
								...CHLOROCOCCALES		
								...OOCYSTACEAE		
								....ANKISTRODESMUS	250	2
								....SELENASTRUM	*	0
								....TETRAEDRON	100	1
								....TREUBARIA	*	0
								...SCENEDESMACEAE		
								....SCENEDESMUS	200	2
								...VOLVOCALES		
								...CHLAMYDOMONADACEAE		
								....CHLAMYDOMONAS	150	1
								CHRYSTOPHYTA		
								..BACILLARIOPHYCEAE		
								..CENTRALES		
								...COSCINODISCAEAE		
								...CYCLOTELLA	1400	13
								..PENNALES		
								...FRAGILARIACEAE		
								...SYNEDRA	*	0
								...NAVICULACEAE		
								...GYROSIGMA	100	1
								...NAVICULA	100	1
								...NITZSCHIAEAE		
								...NITZSCHIA	3300#	30
								CRYPTOPHYTA (CRYPTOMONADS)		
								..CRYPTOPHYCEAE		
								...CRYPTOMONADALES		
								...CRYPTOMONADACEAE		
								....CRYPTOMONAS	*	0
								CYANOPHYTA (BLUE-GREEN ALGAE)		
								..CYANOPHYCEAE		
								...CHROOCOCCALES		
								...CHROOCOCCACEAE		
								....ANACYSTIS	200	2
								..HORMOGONALES		
								...OSCILLATORIACEAE		
								...OSCILLATORIA	4800#	43
								EUGLENOPHYTA (EUGLENOIDS)		
								..EUGLENOPHYCEAE		
								...EUGLENALES		
								...EUGLENACEAE		
								....EUGLENA	300	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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE, WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70333)
JUL 16...	1145	7.3	21.5	29	.57	--	--	--	97	98	100
AUG 21...	1730	2.1	26.0	16	.09	--	--	--	94	98	100
SEP 11...	1955	48	19.0	9550	1240	61	85	100	--	--	--

RIO GRANDE BASIN
08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued
WATER-QUALITY RECORDS

261

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	OCT	NOV	DEC	JAN	ONCE-DAILY		FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---			1330	1420	1410	1260	650	867	1760	1540
2	---	---	---	---			1420	1560	1460	1350	660	782	1750	1600
3	---	---	---	---			1530	1610	1470	1350	622	418	---	1520
4	---	---	---	---			1430	1240	1120	1350	649	377	---	1500
5	---	---	---	---			613	1390	1100	1350	660	367	---	1500
6	---	---	---	---			1390	1410	1480	1640	357	439	---	1500
7	---	---	---	---			1490	1380	1500	1680	577	339	1420	1340
8	---	---	---	---			1420	1430	1530	1670	360	966	1620	1480
9	---	---	---	---			1500	1420	1520	1690	606	1000	1470	1500
10	---	---	---	---			1420	1460	1530	1700	621	1570	1010	1000
11	---	---	---	---			1400	1460	1520	1690	331	502	1560	361
12	---	---	---	---			1480	1460	1520	1700	312	1500	1640	673
13	---	---	---	---			1560	1460	1530	387	308	1640	1710	1470
14	---	---	---	---			1500	1260	1500	415	305	1590	1700	1550
15	---	---	---	1480			1470	1400	1530	420	593	1580	1670	1540
16	---	---	---	---			1460	1510	1550	1160	539	1580	1680	1580
17	---	---	---	---			1420	1510	1390	1270	598	1640	1630	1710
18	---	---	1630	---			1430	1520	1420	1280	375	1480	1360	1760
19	---	---	---	1270			1400	1530	1410	1280	344	1670	1460	1770
20	---	1580	---	1360			1410	1560	1400	1280	332	1630	1480	1780
21	---	---	---	1470			1310	1500	1420	688	328	1600	1500	1780
22	---	---	---	1420			1430	1450	1400	609	330	1590	1530	1760
23	---	---	---	1520			1460	1560	1400	569	683	1570	1510	1760
24	---	---	---	1350			1360	1540	1470	582	713	1600	1520	1770
25	1520	---	---	1390			1430	1580	1430	619	723	1600	1600	1750
26	---	---	---	1380			1580	1540	1400	621	729	1610	1570	1760
27	---	---	---	1380			1500	1570	1400	624	612	1570	1560	1380
28	---	---	---	1440			1550	1550	1420	613	604	1750	1570	1520
29	---	---	---	1430			1610	1580	1320	366	825	1750	1570	1560
30	---	---	---	1430			---	1550	1360	327	857	1690	1560	1540
31	---	---	---	1320			---	1580	---	613	---	1750	1580	---
MEAN	1520	1580	1630	1400			1420	1480	1430	1040	540	1290	1560	1510
WTR YR 1980		MEAN	1290				MAX	1780		MIN	305			

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	OCT	NOV	DEC	JAN	ONCE-DAILY		FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---			5.0	12.0	13.0	19.0	18.0	27.0	26.0	19.5
2	---	---	---	---			2.5	8.5	12.5	18.0	17.0	26.0	24.0	23.0
3	---	---	---	---			9.0	5.0	12.0	19.0	21.0	26.0	26.0	22.0
4	---	---	---	---			10.0	10.0	12.0	20.0	21.0	26.0	25.0	18.5
5	---	---	---	---			8.5	10.0	11.0	16.0	22.0	30.0	25.0	19.0
6	---	---	---	---			10.5	9.0	11.5	19.0	22.0	24.0	25.5	19.0
7	---	---	---	---			10.0	9.0	9.0	19.0	22.0	25.0	26.0	21.0
8	---	---	---	---			10.0	11.0	14.0	15.5	19.0	27.0	27.0	24.0
9	---	---	---	---			10.0	10.0	12.0	19.0	20.0	26.0	26.0	22.0
10	---	---	---	---			9.0	12.0	5.5	19.0	21.0	26.0	22.5	20.0
11	---	---	---	---			9.5	9.0	5.5	19.0	20.0	23.0	24.0	19.0
12	---	---	---	---			8.0	10.0	5.0	17.0	17.0	25.0	28.0	19.5
13	---	---	---	---			4.5	12.0	6.0	17.0	19.0	27.5	26.0	22.5
14	---	---	---	---			9.0	12.0	6.5	18.0	21.0	25.0	28.5	19.5
15	---	---	---	13.0			6.5	9.0	14.0	19.0	21.0	23.0	25.0	20.0
16	---	---	---	---			8.0	8.0	20.5	16.0	17.0	25.0	25.0	22.0
17	---	---	---	---			9.5	11.0	12.5	18.0	23.5	25.0	26.5	19.0
18	---	---	7.0	---			10.0	9.5	13.0	17.0	24.0	26.0	26.5	22.5
19	---	---	---	12.0			5.0	9.0	13.0	19.0	25.0	26.0	25.0	22.0
20	---	10.0	---	6.5			11.0	10.0	14.0	17.0	28.0	25.0	24.0	20.0
21	---	---	---	6.0			9.0	9.0	17.0	19.0	20.0	22.0	25.0	18.5
22	---	---	---	5.0			12.0	11.0	15.0	18.5	27.0	26.0	26.0	23.5
23	---	---	---	4.0			9.5	8.5	16.0	20.0	23.5	27.0	25.0	22.0
24	---	---	---	3.5			10.0	11.0	6.0	18.0	25.0	25.0	25.0	20.0
25	17.5	---	---	3.0			11.0	13.0	6.0	16.0	26.0	25.0	25.5	19.0
26	---	---	---	5.5			12.0	12.0	6.0	18.0	27.0	26.0	25.0	22.0
27	---	---	---	6.0			11.5	14.0	12.0	20.0	25.5	22.0	24.0	20.0
28	---	---	---	3.0			11.0	12.5	10.0	21.0	25.0	25.0	26.0	18.0
29	---	---	---	5.0			12.0	9.0	15.0	16.0	27.5	25.0	24.0	18.0
30	---	---	---	5.0			---	10.0	15.0	17.0	21.0	24.0	24.0	20.0
31	---	---	---	4.5			---	9.0	---	19.0	---	26.0	25.0	---
MEAN	17.5	10.0	7.0	6.0			9.0	10.0	11.5	18.0	22.0	25.5	25.5	20.5
WTR YR 1980		MEAN	17.0				MAX	30.0		MIN	2.5			

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN		MEAN		MEAN		MEAN		MEAN		MEAN	
	CONCEN- TRATION (MG/L)	LOADS (T/DAY)	CONCEN- TRATION (MG/L)	LOADS (T/DAY)	CONCEN- TRATION (MG/L)	LOADS (T/DAY)	CONCEN- TRATION (MG/L)	LOADS (T/DAY)	CONCEN- TRATION (MG/L)	LOADS (T/DAY)	CONCEN- TRATION (MG/L)	LOADS (T/DAY)
		OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH
1	140	.04	60	.02	60	.06	100	.09	51	.04	88	.07
2	140	.04	55	.02	65	.04	100	.09	33	.03	71	.06
3	140	.11	55	.03	65	.05	95	.08	62	.05	71	.07
4	130	.19	55	.03	65	.05	95	.08	203	.20	67	.08
5	130	.17	50	.03	70	.06	95	.08	167	.16	83	.09
6	130	.16	55	.03	75	.06	95	.09	70	.07	101	.14
7	125	.12	55	.04	75	.06	95	.09	82	.10	71	.10
8	125	.11	60	.05	75	.06	95	.08	153	.10	62	.11
9	130	.12	60	.05	80	.06	90	.08	92	.07	85	.15
10	130	.25	55	.05	80	.06	90	.09	62	.07	86	.17
11	130	.19	55	.04	85	.07	90	.09	124	.13	87	.19
12	125	.22	55	.04	90	.09	90	.09	75	.07	99	.23
13	125	.20	55	.04	100	.09	90	.09	83	.08	90	.23
14	120	.17	50	.05	100	.08	90	.09	101	.12	77	.19
15	110	.09	50	.05	110	.09	90	.09	95	.11	77	.21
16	100	.02	50	.05	110	.09	90	.09	87	.07	60	.16
17	100	.02	45	.04	120	.10	95	.09	80	.08	55	.16
18	90	.01	45	.04	129	.10	100	.10	105	.10	58	.17
19	90	.02	40	.04	130	.11	100	.10	115	.10	63	.22
20	80	.01	40	.04	130	.12	46	.05	102	.10	63	.20
21	80	.02	40	.04	120	.13	41	.04	85	.08	73	.22
22	75	.01	40	.04	120	.12	48	.10	75	.07	91	.23
23	75	.03	50	.05	120	.11	39	.05	77	.07	70	.19
24	70	.03	50	.05	110	.09	48	.05	74	.06	78	.20
25	68	.03	55	.05	110	.10	53	.06	69	.06	69	.16
26	65	.03	55	.05	110	.12	62	.06	89	.07	72	.15
27	65	.03	55	.04	110	.14	53	.05	101	.08	83	.15
28	65	.03	60	.05	100	.11	45	.04	92	.09	111	.16
29	60	.02	60	.05	100	.10	52	.04	96	.09	69	.11
30	60	.02	60	.06	100	.09	50	.04	---	---	75	.10
31	60	.02	---	---	100	.09	72	.06	---	---	87	.11
TOTAL	---	2.53	---	1.26	---	2.70	---	2.32	---	2.52	---	4.78

[illegible]

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 mi² (71,740 km²), approximately, including 2,940 mi² (7,610 km²) 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 ft³/s or 57 m³/s) is exceeded. Combined monthly discharge in acre-ft is given at end of each year table. Diversion for irrigation of about 775,000 acres (3,100 km²) above station (includes about 13,800 acre-ft or 17.0 hm³ diverted from conveyance channel, as based on weekly measurements, data furnished by Bureau of Reclamation).
AVERAGE DISCHARGE.--16 years (water years 1965-80), 510 ft³/s (14.44 m³/s), 369,500 acre-ft/yr (456 hm³/yr).
Total flow of river.--85 years (water years 1895-80), 1,240 ft³/s (35.12 m³/s), 898,400 acre-ft/yr (1,108 hm³/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, since January 1895 about 50,000 ft³/s (1,420 m³/s) Oct. 11, 1904.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,210 ft³/s (176 m³/s) May 31, gage height, 16.77 ft (5.111 m); minimum daily, 43 ft³/s (1.22 m³/s) Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	832	1770	1190	1200	1330	667	4510	5970	2990	170	147
2	105	1150	1740	1010	1090	1220	880	4580	5930	2800	111	164
3	105	1510	1700	871	1090	1320	760	4540	5890	2700	86	85
4	110	1500	1680	873	1080	1340	752	4660	5800	2650	195	59
5	130	1540	1720	887	1100	1290	696	4720	5730	2390	246	43
6	160	1530	1750	903	1220	1370	632	4690	5570	2370	553	50
7	273	1630	1760	960	1190	1320	586	4510	5400	2510	455	195
8	309	1680	1790	909	1090	1150	530	4650	5370	2270	483	345
9	336	1690	1790	906	1060	1110	537	4910	5390	2270	564	360
10	285	1750	1800	846	1130	1140	530	5100	5930	2030	712	2730
11	297	1750	1810	882	1070	1170	616	5090	6000	1750	566	3120
12	392	1700	1800	1010	1250	911	648	5190	5780	1480	514	2330
13	385	1720	1850	1070	1150	717	992	5350	5670	1390	428	1840
14	378	1720	1860	1090	1040	742	1710	5320	5520	1230	464	1150
15	329	1700	1870	1090	1040	764	1690	5430	5390	1270	1320	824
16	343	1650	1860	1050	1060	742	1180	5710	5320	1050	1330	814
17	300	1650	1850	1020	1170	661	976	5710	5180	820	840	711
18	326	1640	1850	1020	1220	637	928	5660	5020	728	737	602
19	285	1600	1870	1030	1130	613	920	5620	4890	679	998	517
20	313	1560	1840	1000	1160	639	1380	5590	4860	461	670	510
21	313	1610	1840	1020	1320	629	1600	5560	4800	315	330	548
22	364	1620	1830	1020	1340	684	1560	5560	4730	273	316	471
23	286	1620	1830	1020	1250	687	1570	5530	4670	123	357	381
24	292	1660	1860	991	1200	505	2050	5550	4560	98	389	300
25	324	1670	1780	1020	1240	432	2670	5630	4450	161	316	210
26	358	1670	1800	1120	1270	461	3130	5760	4210	206	341	173
27	351	1570	1850	1240	1220	550	3440	5870	3780	194	245	188
28	347	1660	1830	1140	1180	548	3750	5940	3610	252	318	202
29	322	1760	1800	1060	1300	638	3830	6010	3260	242	414	188
30	435	1770	1760	1050	---	783	4310	6020	3120	226	261	173
31	590	---	1500	1160	---	697	---	6040	---	210	184	---
TOTAL	9268	48112	55640	31458	33860	26800	45520	165010	151750	38138	14913	19430
MEAN	299	1604	1795	1015	1168	865	1517	5323	5058	1230	481	648
MAX	590	1770	1870	1240	1340	1370	4310	6040	6000	2990	1330	3120
MIN	105	832	1500	846	1040	432	530	4510	3120	98	86	43
AC-FT	18380	95430	110400	62400	67160	53160	90290	327300	301000	75650	29580	38540
(+)	18400	95450	110400	62420	67180	53210	90400	330200	35150	78830	29720	38830
CAL YR 1979 TOTAL	780543			MEAN 2138	MAX 6260	MIN 76	AC-FT 1548000	(+) MEAN 2148	AC-FT 1555000			
WTR YR 1980 TOTAL	639899			MEAN 1748	MAX 6040	MIN 43	AC-FT 1269000	(+) MEAN 1763	AC-FT 1280000			

(+) COMBINED FLOW, IN ACRE-FT, AND MEAN, IN CUBIC FEET PER SECOND, OF FLOODWAY AND CONVEYANCE CHANNEL.

RIO GRANDE BASIN
08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued
WATER-QUALITY RECORDS

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 determinations 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 ton (0 tonne) many days each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,380 micromhos July 12; minimum daily, 277 micromhos June 12.

WATER TEMPERATURES: Maximum, 29.0°C July 5; minimum, 0.0°C on several days during December, January, and February.

SEDIMENT CONCENTRATIONS: Maximum daily, 23,100 mg/L Sept. 8; minimum daily, 95 mg/L Sept. 29.

SEDIMENT LOADS: Maximum daily, 194,000 tons (176,000 tonnes) Sept. 11; minimum daily, 48 tons (44 tonnes) Sept. 29.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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										
01...	0645	125	926	8.2	--	12.0	180	--	--	--
03...	0930	105	924	8.3	--	14.0	--	--	--	0
09...	0645	336	935	8.1	--	10.0	150	--	--	--
15...	0650	329	696	8.3	--	9.0	73	--	--	--
22...	0645	350	--	--	--	11.0	52	--	--	--
25...	1425	343	901	8.1	25.5	16.5	91	8.9	18	240
29...	0650	322	948	--	--	9.0	47	--	--	--
NOV										
02...	1200	1200	542	8.0	--	6.0	--	--	--	160
03...	0710	1560	532	--	--	3.0	100	--	--	--
05...	0710	1510	555	--	--	8.0	88	--	--	--
14...	0650	1720	603	--	--	4.0	67	--	--	--
19...	0650	1600	518	--	--	4.0	170	--	--	--
20...	1535	1580	494	8.3	8.0	7.5	170	10.3	36	170
26...	0655	1710	509	--	--	5.0	130	--	--	--
DEC										
04...	1200	1540	527	8.1	--	3.0	--	--	--	170
10...	0710	1840	536	--	--	3.0	110	--	--	--
18...	0640	1900	523	--	--	3.0	110	--	--	--
18...	1130	1730	508	8.0	--	1.0	--	--	--	--
18...	1618	1920	500	8.1	6.5	3.5	64	11.6	33	170
26...	0745	1710	515	--	--	1.0	96	--	--	--
JAN										
02...	0650	1280	623	--	--	1.0	92	--	--	--
03...	1200	820	650	7.9	--	1.0	--	--	--	190
07...	0650	984	650	--	--	.0	65	--	--	--
15...	1425	1080	560	--	--	4.0	70	--	--	--
15...	1515	1110	615	8.1	13.5	10.5	63	9.5	26	170
21...	0710	1010	731	--	--	.0	1800	--	--	--
21...	1100	1020	674	7.7	--	5.0	--	--	--	--
28...	0715	1220	641	--	--	1.0	520	--	--	--
FEB										
04...	0645	1060	625	--	--	2.0	180	--	--	--
04...	1100	1030	610	8.0	--	9.0	--	--	--	190
11...	0720	1060	655	--	--	.0	120	--	--	--
19...	0640	1130	611	--	--	5.0	130	--	--	--
19...	1200	1110	769	7.7	--	10.0	--	--	--	--
21...	1621	1370	616	8.0	14.0	8.5	880	10.0	58	180
25...	0705	1210	632	--	--	9.0	1600	--	--	--
MAR										
03...	0645	1320	564	7.7	--	9.0	240	--	--	--

RIO GRANDE BASIN
08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued
WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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)
MAR										
03...	1115	1370	598	8.1	--	5.0	--	--	--	170
11...	1520	1170	559	8.2	--	8.5	360	--	--	--
17...	1130	586	570	8.2	--	12.0	150	--	--	--
20...	1720	672	635	7.9	19.0	13.0	110	8.8	0	190
24...	0650	508	621	8.2	--	9.5	140	--	--	--
31...	0640	784	581	8.1	--	8.5	93	--	--	--
APR										
01...	1345	613	661	8.2	--	11.0	--	--	--	--
07...	0650	616	667	8.3	--	12.0	84	--	--	--
14...	0635	1260	624	8.2	--	5.0	88	--	--	--
16...	1616	1180	529	8.1	26.0	17.5	170	8.5	25	150
21...	0625	1600	567	7.9	--	12.0	140	--	--	--
28...	0710	3750	519	8.0	--	10.0	1400	--	--	--
MAY										
01...	1115	4380	442	8.1	--	14.0	--	--	--	--
05...	0745	4730	446	7.7	--	18.0	680	--	--	--
12...	0715	5170	443	7.8	--	18.0	290	--	--	--
13...	1713	5420	383	7.4	26.5	17.0	950	7.9	80	120
14...	1200	5420	348	7.9	--	18.0	--	--	--	--
19...	0810	5720	437	7.9	--	18.0	740	--	--	--
27...	0810	5800	363	--	--	14.0	530	--	--	--
JUN										
02...	0710	5930	--	--	--	18.0	580	--	--	--
09...	0710	5330	--	--	--	17.0	540	--	--	--
16...	0745	5330	306	7.9	--	19.0	320	--	--	--
17...	1245	4900	333	7.9	--	23.0	--	--	--	110
19...	1719	4720	303	8.1	31.0	23.5	300	7.0	50	97
24...	0710	4120	296	7.6	--	22.0	240	--	--	--
30...	0715	3100	316	7.5	--	20.0	130	--	--	--
JUL										
02...	1230	2700	348	8.5	--	24.0	--	--	--	120
07...	0840	2750	420	7.7	--	22.0	650	--	--	--
14...	0645	1280	421	7.6	--	18.5	66	--	--	--
15...	1110	1220	480	8.3	--	25.0	--	--	--	--
21...	0745	300	702	7.5	--	24.0	34	--	--	--
28...	0740	240	770	8.3	--	24.0	130	--	--	--
30...	0940	210	757	8.0	--	23.0	--	--	--	--
AUG										
04...	0745	131	833	8.2	--	24.0	54	--	--	--
12...	0810	535	839	7.6	--	24.0	7700	--	--	--
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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)
AUG										
18...	0750	737	679	7.6	--	23.5	4400	--	--	--
21...	1821	345	710	8.4	28.0	26.0	1.5	6.8	130	220
25...	0640	318	762	8.3	--	22.0	680	--	--	--
SEP										
02...	0710	124	996	7.9	--	22.0	360	--	--	--
02...	0945	185	831	7.8	--	19.0	--	--	--	220
08...	0840	318	873	--	--	18.0	240	--	--	--
16...	1120	818	710	7.7	--	22.0	7500	--	--	--
18...	1718	535	830	8.3	29.0	23.0	380	7.7	77	230
22...	0710	471	775	7.0	--	17.0	880	--	--	--
29...	0710	188	846	8.2	--	19.0	150	--	--	--

RIO GRANDE BASIN

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

[illegible]

[illegible]

RIO GRANDE BASIN

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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									
01...	--	--	--	--	.10	--	.030	--	.75
03...	.5	.0	--	374	--	.00	--	--	--
09...	--	--	--	--	.17	--	.200	--	.54
15...	--	--	--	--	.51	--	.010	--	.80
22...	--	--	--	--	.23	--	.020	--	.72
25...	.5	29	521	535	.24	.24	.090	.000	.69
29...	--	--	--	--	.15	--	.100	--	.70
NOV									
02...	.5	23	--	335	--	.68	--	--	--
03...	--	--	--	--	.43	--	.300	--	.58
05...	--	--	--	--	.57	--	.250	--	1.2
14...	--	--	--	--	.72	--	.080	--	2.3
19...	--	--	--	--	.63	--	.060	--	.90
20...	.4	24	343	364	.74	.51	.050	.090	1.5
26...	--	--	--	--	.43	--	.110	--	.39
DEC									
04...	.4	24	--	364	--	.40	--	--	--
10...	--	--	--	--	.66	--	.050	--	1.2
18...	--	--	--	--	.45	--	.080	--	.81
18...	--	--	--	--	--	--	--	--	--
18...	.4	23	333	333	.56	.47	.150	.120	1.4
26...	--	--	--	--	.59	--	.080	--	.80
JAN									
02...	--	--	--	--	.43	--	.180	--	1.1
03...	.5	26	--	421	--	.50	--	--	--
07...	--	--	--	--	.42	--	.270	--	1.3
15...	--	--	--	--	.66	--	.190	--	.66
15...	.5	24	416	394	.68	.67	.160	.160	1.1
21...	--	--	--	--	.74	--	.070	--	3.7
21...	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	.70	--	.110	--	1.3
FEB									
04...	--	--	--	--	.81	--	.050	--	.47
04...	.5	24	--	406	--	.80	--	--	--
11...	--	--	--	--	.59	--	.070	--	.84
19...	--	--	--	--	.41	--	.040	--	.79
19...	--	--	--	--	--	--	--	--	--
21...	.6	30	407	396	.91	.91	.070	.060	2.1
25...	--	--	--	--	.84	--	.060	--	4.0
MAR									
03...	--	--	--	--	.77	--	.200	--	.90

RIO GRANDE BASIN
08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued
WATER-QUALITY RECORDS

269

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
MAR									
03...	.5	24	--	371	--	.79	--	--	--
11...	--	--	--	--	.73	--	.040	--	1.1
17...	--	--	--	--	.77	--	.040	--	.95
20...	.5	25	402	396	.65	.69	.170	.020	.93
24...	--	--	--	--	.76	--	.040	--	.95
31...	--	--	--	--	.64	--	.060	--	.73
APR									
01...	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	.57	--	.030	--	.76
14...	--	--	--	--	.63	--	.120	--	2.5
16...	.5	24	352	329	.56	.56	.060	.000	1.2
21...	--	--	--	--	.56	--	.120	--	1.4
28...	--	--	--	--	.38	--	.130	--	2.2
MAY									
01...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	.29	--	.030	--	.42
12...	--	--	--	--	.23	--	.020	--	1.1
13...	.3	20	224	223	.28	.23	.060	.010	1.8
14...	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	.25	--	.270	--	1.2
27...	--	--	--	--	.21	--	.040	--	2.0
JUN									
02...	--	--	--	--	.18	--	.040	--	1.7
09...	--	--	--	--	.18	--	.100	--	1.3
16...	--	--	--	--	.16	--	.000	--	1.1
17...	.3	18	--	208	--	.11	--	--	--
19...	.2	17	177	180	.20	.20	.090	.060	2.1
24...	--	--	--	--	.18	--	.040	--	1.3
30...	--	--	--	--	.08	--	.000	--	1.5
JUL									
02...	.4	33	--	238	--	.02	--	--	--
07...	--	--	--	--	.25	--	.100	--	1.9
14...	--	--	--	--	.19	--	.000	--	.97
15...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	.03	--	.000	--	1.3
28...	--	--	--	--	.18	--	.000	--	1.2
30...	--	--	--	--	--	--	--	--	--
AUG									
04...	--	--	--	--	.01	--	.010	--	.93
12...	--	--	--	--	.74	--	.050	--	11
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)
AUG									
18...	--	--	--	--	.45	--	.060	--	7.7
21...	.6	17	456	440	.59	.57	.000	.000	3.4
25...	--	--	--	--	.16	--	.010	--	1.3
SEP									
02...	--	--	--	--	.06	--	.040	--	1.5
02...	.6	25	--	514	--	.28	--	--	--
08...	--	--	--	--	.00	--	.020	--	1.2
16...	--	--	--	--	.46	--	.190	--	13
18...	.6	17	517	508	.52	.49	--	.000	--
22...	--	--	--	--	.19	--	.030	--	1.4
29...	--	--	--	--	.11	--	.000	--	.65

RIO GRANDE BASIN

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITRO- GEN, TOTAL (MG/L AS N) (006000)	PHOS- PHORUS, TOTAL (MG/L AS P) (006655)	PHOS- ORTHOPH OSPHATE DISSOL. (MG/L AS P) (006711)	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- PENDEED (MG/L AS C) (00689)
OCT									
01...	.88	.330	--	--	--	--	--	--	--
03...	--	--	.090	190	0	--	--	--	--
09...	.91	.310	--	--	--	--	--	--	--
15...	1.3	.510	--	--	--	--	--	--	--
22...	.97	.420	--	--	--	--	--	--	--
25...	1.0	.370	.180	170	10	--	13	7.2	1.8
29...	.95	.220	--	--	--	--	--	--	--
NOV									
02...	--	1.100	.260	110	20	--	--	--	--
03...	1.3	.340	--	--	--	--	--	--	--
05...	2.0	.870	--	--	--	--	--	--	--
14...	3.1	1.400	--	--	--	--	--	--	--
19...	1.6	.590	--	--	--	--	--	--	--
20...	2.2	.720	.220	90	<10	--	24	9.0	--
26...	.93	.530	--	--	--	--	--	--	--
DEC									
04...	--	.270	.220	100	<10	--	--	--	--
10...	1.9	.100	--	--	--	--	--	--	--
18...	1.3	.080	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
18...	2.1	.600	.230	80	<10	7	--	5.2	2.8
26...	1.5	.340	--	--	--	--	--	--	--
JAN									
02...	1.7	.460	--	--	--	--	--	--	--
03...	--	.530	.420	140	<10	--	--	--	--
07...	2.0	.560	--	--	--	--	--	--	--
15...	1.5	.660	--	--	--	--	--	--	--
15...	2.0	.520	.320	130	20	--	8.6	5.0	--
21...	4.5	2.600	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
28...	2.1	.670	--	--	--	--	--	--	--
FEB									
04...	1.3	.320	--	--	--	--	--	--	--
04...	--	.510	.330	120	<10	--	--	--	--
11...	1.5	.510	--	--	--	--	--	--	--
19...	1.2	.540	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--
21...	3.1	1.300	.270	120	20	--	20	4.5	14
25...	4.9	2.000	--	--	--	--	--	--	--
MAR									
03...	1.9	.630	--	--	--	--	--	--	--

RIO GRANDE BASIN
08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued
WATER-QUALITY RECORDS

271

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITRO- GEN, TOTAL (MG/L AS N) (006600)	PHOS- PHORUS, TOTAL (MG/L AS P) (006655)	PHOS- PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P) (006711)	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- PENDE (MG/L AS C) (00689)
MAR									
03...	--	1.600	.290	110	<10	--	--	--	--
11...	1.8	.680	--	--	--	--	--	--	--
17...	1.8	.630	--	--	--	--	--	--	--
20...	1.8	.620	.370	110	20	4	--	5.9	2.3
24...	1.8	.600	--	--	--	--	--	--	--
31...	1.4	.520	--	--	--	--	--	--	--
APR									
01...	--	--	--	--	--	--	--	--	--
07...	1.4	.460	--	--	--	--	--	--	--
14...	3.2	.540	--	--	--	--	--	--	--
16...	1.9	.790	.280	120	20	--	8.3	8.1	5.4
21...	2.1	.670	--	--	--	--	--	--	--
28...	2.7	1.500	--	--	--	--	--	--	--
MAY									
01...	--	--	--	--	--	--	--	--	--
05...	.74	.560	--	--	--	--	--	--	--
12...	1.3	.350	--	--	--	--	--	--	--
13...	2.2	1.200	.070	70	130	--	7.0	5.6	8.8
14...	--	--	--	--	--	--	--	--	--
19...	1.8	.570	--	--	--	--	--	--	--
27...	2.2	1.800	--	--	--	--	--	--	--
JUN									
02...	1.9	1.100	--	--	--	--	--	--	--
09...	1.6	.470	--	--	--	--	--	--	--
16...	1.3	.390	--	--	--	--	--	--	--
17...	--	.380	.130	60	<10	--	--	--	--
19...	2.4	.860	.130	50	40	2	--	8.4	6.7
24...	1.5	.350	--	--	--	--	--	--	--
30...	1.6	.350	--	--	--	--	--	--	--
JUL									
02...	--	.470	.110	70	<10	--	--	--	--
07...	2.3	.760	--	--	--	--	--	--	--
14...	1.2	.360	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
21...	1.3	.240	--	--	--	--	--	--	--
28...	1.4	.310	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--
AUG									
04...	.95	.210	--	--	--	--	--	--	--
12...	12	4.200	--	--	--	--	--	--	--
DATE	NITRO- GEN, TOTAL (MG/L AS N) (006600)	PHOS- PHORUS, TOTAL (MG/L AS P) (006655)	PHOS- PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P) (006711)	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- PENDE (MG/L AS C) (00689)
AUG									
18...	8.3	2.100	--	--	--	--	--	--	--
21...	4.0	5.500	.320	130	60	--	35	6.4	17
25...	1.5	.450	--	--	--	--	--	--	--
SEP									
02...	1.6	.740	--	--	--	--	--	--	--
02...	--	.840	.050	150	<10	--	--	--	--
08...	1.2	.420	--	--	--	--	--	--	--
16...	13	3.800	--	--	--	--	--	--	--
18...	--	2.200	.220	190	50	10	--	7.2	10
22...	1.6	.860	--	--	--	--	--	--	--
29...	.76	.280	--	--	--	--	--	--	--

RIO GRANDE BASIN

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
OCT											
25...	1425	--	--	--	--	170	--	--	--	--	--
NOV											
20...	1535	--	--	--	--	90	--	--	--	--	--
DEC											
18...	1618	5	4	500	80	80	1	<1	10	0	6
JAN											
15...	1515	--	--	--	--	130	--	--	--	--	--
FEB											
21...	1621	--	--	--	--	120	--	--	--	--	--
MAR											
20...	1720	7	7	300	70	110	1	<1	20	0	4
APR											
16...	1616	--	--	--	--	120	--	--	--	--	--
MAY											
13...	1713	--	--	--	--	70	--	--	--	--	--
JUN											
19...	1719	5	3	600	50	50	1	<1	30	0	11
AUG											
21...	1821	--	--	--	--	130	--	--	--	--	--
SEP											
18...	1718	--	6	800	100	190	0	0	40	40	19

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										
25...	--	--	--	--	10	--	--	--	--	--
NOV										
20...	--	--	--	--	<10	--	--	--	--	--
DEC										
18...	<3	38	0	11000	<10	16	0	480	7	.0
JAN										
15...	--	--	--	--	20	--	--	--	--	--
FEB										
21...	--	--	--	--	20	--	--	--	--	--
MAR										
20...	<3	11	1	5300	20	9	0	340	4	.1
APR										
16...	--	--	--	--	20	--	--	--	--	--
MAY										
13...	--	--	--	--	130	--	--	--	--	--
JUN										
19...	<3	34	6	24000	40	25	0	780	2	.1
AUG										
21...	--	--	--	--	60	--	--	--	--	--
SEP										
18...	0	43	2	41000	50	39	2	1300	10	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
OCT 25...	--	3	--	--	--	--	--	--	--	--
NOV 20...	--	2	--	--	--	--	--	--	--	--
DEC 18...	.0	8	9	0	0	0	0	0	140	<3
JAN 15...	--	2	--	--	--	--	0	--	--	--
FEB 21...	--	5	--	--	--	--	--	--	--	--
MAR 20...	.0	9	9	0	0	0	0	0	50	<3
APR 16...	--	--	--	--	--	--	1	--	--	--
MAY 13...	--	2	--	--	--	--	--	--	--	--
JUN 19...	.1	2	24	3	1	0	0	0	100	<3
AUG 21...	--	3	--	--	--	--	--	--	--	--
SEP 18...	.0	4	43	4	--	0	0	0	190	10

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 AS CO) (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)
OCT 25...	1425	.0	--	288	220	2	0	1	0	1
AUG 21...	1821	.0	12	29	190	2	0	0	0	0

DATE	TIME	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 AS G) (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G AS G) (01148)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C) (00693)	CARBON, ORGANIC TOT. IN BOT MAT (G/KG AS C) (00687)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C) (00686)
OCT 25...	720	0	60	.01	0	3	2.0	.4	1.6	
AUG 21...	500	10	50	.00	--	5	--	--	--	

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 (PCI/L METHOD (09511)	URANIUM DIS- SOLVED (UG/L EXTRAC- TION (80020)
OCT 25...	1425	<9.6	5.2	8.2	8.5	7.7	8.3	.09	3.1
APR 16...	1616	7.1	53	5.8	46	5.9	47	.06	3.0

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
AUG 21...	1821	.00	.00	.0	.00	.00	.00	.00

RIO GRANDE BASIN
08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued
WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, TOTAL (UG/L) (39388)	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)
AUG 21...	.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 TOTAL (UG/L) (39786)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
AUG 21...	.00	.00	0	.00	.00	.00	.0	.00

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 25...	1425	160	360
NOV 20...	1535	870	1100
DEC 18...	1618	127	440
JAN 15...	1515	430	1300
FEB 21...	1621	1400	1300
MAR 20...	1720	32	280
APR 16...	1616	220	840
MAY 13...	1713	460	450
JUN 19...	1719	190	560
AUG 21...	1821	1100	980
SEP 18...	1718	3100	1700

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	MAR 20,80		MAY 13,80		JUN 19,80		SEP 18,80	
TIME	1720		1713		1719		1718	
TOTAL CELLS/ML	2100		1100		3600		5600	
DIVERSITY: DIVISION	1.3		1.7		0.9		1.4	
...CLASS	1.3		1.7		0.9		1.4	
...ORDER	1.6		1.7		1.1		1.7	
...FAMILY	3.0		2.3		1.6		1.8	
...GENUS	3.1		2.4		2.6		2.0	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
..CHLOROCOCCALES								
...OOCYSTACEAE								
....ANKISTRODESMUS	--	--	--	--	280	8	--	--
....DICTYOSPHAERIUM	41	2	--	--	--	--	--	--
....OOCYSTIS	--	--	--	--	--	--	580	10
...SCENEDESMACEAE								
....CRUCIGENIA	--	--	--	--	1100#	31	--	--
...SCENEDESMUS	27	1	220#	20	830#	23	140	3
...TETRASTRUM	--	--	--	--	550#	15	--	--
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CARTERIA	14	1	--	--	--	--	--	--
....CHLAMYDOMONAS	110	5	--	--	--	--	--	--
CHRYSTOPHYTA								
..BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	82	4	--	--	280	8	220	4
....STEPHANODISCUS	--	--	--	--	--	--	2400#	44
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	14	1	--	--	--	--	--	--
...COCCONEIS	27	1	--	--	--	--	--	--
...CYMBELLACEAE								
....CYMBELLA	27	1	--	--	--	--	--	--
....RHOPALODIA	14	1	--	--	--	--	--	--
...DIATOMACEAE								
....DIATOMA	41	2	82	7	--	--	--	--
...FRAGILARIACEAE								
....FRAGILARIA	140	6	140	13	--	--	--	--
....SYNEDRA	--	--	27	2	--	--	--	--
...GOMPHONEMACEAE								
....GOMPHONEMA	69	3	--	--	--	--	--	--
...NAVICULACEAE								
....NAVICULA	290	13	27	2	280	8	--	--
...NITZSCHIA	580#	27	110	10	140	4	430	8
...NITZSCHIA								
...SURIRELLACEAE								
....SURIRELLA	96	4	--	--	--	--	--	--
CRYPTOPHYTA (CRYPTOMONADS)								
..CRYPTOPHYCEAE								
...CRYPTOMONADALES								
....CRYPTOMONADACEAE								
....CRYPTOMONAS	--	--	--	--	140	4	--	--
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROOCOCCALES								
....CHROOCOCCACEAE								
....ANACYSTIS	--	--	--	--	--	--	1800#	32
...HORMOGONALES								
...OSCILLATORIA								
....OSCILLATORIA	560#	26	--	--	--	--	--	--
...RIVULARIACEAE								
....RAPHIDIOPSIS	--	--	470#	42	--	--	--	--
EUGLENOPHYTA (EUGLENOIDS)								
..EUGLENOPHYCEAE								
...EUGLENALES								
....EUGLENACEAE								
....TRACHELOMONAS	14	1	27	2	--	--	--	--

RIO GRANDE BASIN
08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM --- Continued
WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL CATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
PERIPHYTON

DATE	TIME	LENGTH OF EXPO- SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00022)	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
NOV 20...	1535	25	.080	.080	.000	.000	--	Polyethylene strip
FEB 21...	1621	36	.080	.000	.000	.000	--	
JUN 19...	1719	38	.315	.157	.000	.000	--	"
SEP 18...	1718	31	.787	.315	.120	.000	3933	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (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 02...	1200	1200	6.0	1920	6220	28	32	--	49
19...	1200	1640	7.0	1090	4830	18	21	--	27
20...	1535	1580	7.5	2090	8920	9	10	--	16
DEC 04...	1200	1540	3.0	1040	4320	14	16	--	20
18...	1130	1730	1.0	575	2690	--	--	--	--
18...	1618	1920	3.5	3280	17000	5	5	--	8
JAN 03...	1200	820	1.0	1140	2520	20	20	--	26
15...	1515	1110	10.5	1430	4290	7	8	--	10
21...	1100	1020	5.0	3010	8290	66	74	--	90
FEB 04...	1100	1030	9.0	524	1460	25	28	--	53
19...	1200	1110	10.0	11300	33900	59	65	--	88
21...	1621	1370	8.5	3150	11700	48	53	--	68
MAR 03...	1115	1370	5.0	3050	11300	44	50	--	58
20...	1720	672	13.0	683	1240	18	22	--	33
APR 01...	1345	613	11.0	255	422	44	50	--	68
16...	1616	1180	17.5	1800	5740	10	13	--	19
MAY 01...	1115	4380	14.0	2430	28700	37	44	--	56
12...	0715	5170	18.0	4580	63900	24	28	--	34
13...	1713	5420	17.0	6120	89600	--	--	--	--
14...	1200	5420	18.0	3680	53900	31	32	--	43
28...	1840	5930	18.0	6070	97200	17	20	--	28
29...	0715	5930	18.0	11700	187000	10	11	--	14
JUN 17...	1245	4900	23.0	757	10000	32	35	--	43
19...	1441	4740	25.0	3700	47400	8	9	--	14
19...	1719	4720	23.5	4260	54300	10	12	--	16
19...	1805	4780	25.0	1840	23700	12	13	--	17
JUL 02...	1230	2700	24.0	560	4080	23	28	32	40
15...	1110	1220	25.0	602	1980	33	41	47	53
30...	0940	210	23.0	186	105	46	55	65	74
AUG 09...	1845	480	26.0	11800	15300	53	65	--	88
20...	0930	694	23.0	6540	12300	59	70	--	92

RIO GRANDE BASIN
08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued
WATER-QUALITY RECORDS

277

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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. 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)
NOV									
02...	--	93	100	--	--	--	--	--	--
19...	--	--	--	--	--	--	46	99	100
20...	--	36	69	99	100	--	--	--	--
DEC									
04...	--	50	79	99	100	--	--	--	--
18...	--	65	92	100	--	--	--	--	--
18...	--	21	66	99	100	--	--	--	--
JAN									
03...	--	55	91	100	--	--	--	--	--
15...	--	33	79	100	--	--	--	--	--
21...	--	96	99	100	--	--	--	--	--
FEB									
04...	--	56	88	100	--	--	--	--	--
19...	--	94	98	100	--	--	--	--	--
21...	--	78	93	100	--	--	--	--	--
MAR									
03...	--	70	89	100	--	--	--	--	--
20...	--	56	86	100	--	--	--	--	--
APR									
01...	--	--	--	--	--	--	96	100	--
16...	--	54	83	100	--	--	--	--	--
MAY									
01...	--	85	97	100	--	--	--	--	--
12...	--	53	81	100	--	--	--	--	--
13...	--	--	--	--	--	--	47	--	--
14...	--	74	93	100	--	--	--	--	--
28...	--	54	87	99	100	--	--	--	--
29...	--	34	69	94	99	100	--	--	--
JUN									
17...	--	74	97	99	100	--	--	--	--
19...	--	35	64	95	100	--	--	--	--
19...	--	41	83	100	--	--	--	--	--
19...	--	40	74	97	100	--	--	--	--
JUL									
02...	50	73	93	100	--	--	--	--	--
15...	62	--	--	--	--	--	79	95	100
30...	88	--	--	--	--	--	99	100	--
AUG									
09...	--	--	--	--	--	--	99	100	--
20...	--	100	--	--	--	--	--	--	--

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE, WATER (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
AUG							
21...	1821	345	26.0	2810	2620	58	67
SEP							
02...	0945	185	19.0	1010	504	45	58
11...	1900	4460	20.0	25500	307000	55	65
18...	1718	535	23.0	2750	3970	51	60

DATE	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)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)
AUG						
21...	73	89	96	100	--	--
SEP						
02...	84	--	--	--	95	100
11...	82	98	100	--	--	--
18...	69	89	98	100	--	--

RIO GRANDE BASIN
08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued
WATER-QUALITY RECORDS

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (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)
NOV								
02...	1200	1200	1920	6220	24	78	100	--
19...	1200	1640	1090	4830	7	28	93	100
DEC								
04...	1200	1540	1040	4320	12	45	96	100
18...	1130	1730	575	2690	2	19	97	100
JAN								
03...	1200	820	1140	2520	3	34	98	100
21...	1100	1020	3010	8290	3	36	98	100
FEB								
04...	1100	1030	524	1460	2	38	99	100
19...	1200	1110	11300	33900	2	20	97	100
MAR								
03...	1115	1370	3050	11300	3	24	99	100
APR								
01...	1345	613	255	422	2	35	100	--
MAY								
14...	1200	5420	3680	53900	4	31	92	100
JUN								
17...	1245	4900	757	10000	3	34	93	100
JUL								
02...	1230	2700	560	4080	75	99	100	--
15...	1110	1220	602	1980	15	51	94	100
30...	0940	210	186	105	3	26	96	100
AUG								
20...	0930	694	6540	12300	83	99	100	--
SEP								
02...	0945	185	1010	504	10	63	100	--

TOTAL SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SEDI- MENT DISCH. TOTAL, SUSP.+ BEDLOAD (T/DAY) (80156)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOC- ITY, MEAN (FPS) (00055)
NOV									
02...	1200	1200	6.0	1920	6220	7750	215	1.5	3.8
19...	1200	1640	7.0	1090	4830	8240	205	1.8	4.4
DEC									
04...	1200	1540	3.0	1040	4320	6160	205	1.8	4.2
18...	1130	1730	1.0	575	2690	4420	216	1.9	4.2
JAN									
03...	1200	820	1.0	1140	2520	4360	180	1.2	3.7
FEB									
04...	1100	1030	9.0	524	1460	2970	205	1.4	3.6
MAR									
03...	1115	1370	5.0	3050	11300	13000	206	1.7	3.9
MAY									
14...	1200	5420	18.0	3680	53900	57900	216	4.4	5.6
JUN									
17...	1245	4900	23.0	757	10000	13900	210	4.1	5.7
SEP									
02...	0945	185	19.0	1010	504	586	104	.99	1.8

RIO GRANDE BASIN
08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued
WATER-QUALITY RECORDS

279

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	814	857	503	516	594	538	648	468	366	385	922	987
2	869	530	524	622	562	594	683	445	359	383	921	969
3	667	864	519	658	639	605	691	446	342	365	---	930
4	650	540	528	659	614	580	690	440	401	347	---	898
5	646	521	504	599	668	596	698	436	344	346	---	864
6	638	527	512	528	636	597	693	434	318	443	---	886
7	635	520	534	612	675	604	701	458	313	448	862	913
8	667	498	497	644	665	601	667	411	335	396	934	901
9	890	556	535	631	644	601	666	462	342	392	966	908
10	861	577	498	634	693	603	660	470	340	439	784	1140
11	816	592	525	601	659	610	663	467	283	443	774	1010
12	838	530	542	606	690	602	660	420	277	1380	765	921
13	815	543	502	434	637	606	664	342	279	462	770	916
14	867	495	502	692	658	628	664	366	281	600	768	907
15	655	491	491	666	651	637	568	410	340	532	774	916
16	635	487	494	600	661	670	589	370	323	585	772	911
17	657	524	494	624	656	683	581	392	365	614	773	884
18	616	490	527	604	662	680	589	428	321	604	647	848
19	822	528	520	784	631	685	584	403	310	753	690	884
20	820	527	500	614	659	676	589	395	304	763	580	873
21	803	495	508	700	690	679	587	366	305	868	724	952
22	812	509	603	610	625	673	589	414	303	868	832	963
23	807	528	565	602	712	678	527	405	329	858	827	968
24	889	529	655	588	732	636	517	366	314	893	813	962
25	873	530	600	625	700	636	515	361	328	872	1030	972
26	846	528	---	597	740	633	514	361	307	858	1070	969
27	865	546	606	609	682	652	515	414	305	858	1070	828
28	853	519	634	601	610	637	513	334	324	918	1080	888
29	837	518	613	618	558	642	507	309	378	932	1100	914
30	838	507	500	613	---	639	446	299	381	871	1080	915
31	886	---	490	585	---	640	---	366	---	925	1070	---
MEAN	780	547	534	615	655	630	606	402	327	658	867	927
WTR YR 1980		MEAN	627	MAX	1380	MIN	277					

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	6.0	3.5	.0	4.0	12.0	11.0	15.0	19.0	24.0	25.0	20.0
2	13.0	6.0	1.5	1.0	2.0	8.0	14.0	16.0	17.5	24.0	26.0	19.0
3	11.5	7.0	.0	.0	8.0	4.5	13.0	19.0	18.0	27.0	28.0	19.5
4	12.0	5.0	3.0	.0	8.5	10.0	14.0	22.0	18.0	26.0	24.0	17.0
5	12.0	6.0	2.0	1.5	9.0	11.0	11.0	14.0	19.5	29.0	25.0	19.0
6	14.0	5.0	2.5	3.5	10.0	9.0	10.0	16.0	22.0	26.0	24.5	20.5
7	11.0	5.0	3.0	.0	10.0	10.0	9.0	19.0	20.0	25.0	25.0	22.0
8	14.5	5.5	.5	2.0	9.0	12.0	12.0	15.0	18.0	26.0	26.0	23.0
9	13.0	7.0	3.0	3.0	11.0	11.0	14.0	20.0	20.0	25.0	26.0	24.0
10	14.0	7.0	1.0	4.0	10.0	9.5	5.0	19.0	22.0	26.0	23.0	21.0
11	14.0	6.5	2.5	3.0	8.5	8.0	4.0	20.0	22.0	24.0	25.0	20.0
12	13.0	7.0	4.0	3.5	9.0	9.0	6.0	18.0	19.0	27.0	27.5	21.0
13	14.5	7.0	3.5	3.0	5.0	9.0	5.0	17.0	18.5	28.0	26.0	24.5
14	15.0	6.0	.0	3.5	9.5	12.0	5.0	18.0	20.0	27.0	25.5	23.5
15	14.0	5.0	4.0	3.0	5.0	8.5	14.0	18.0	22.0	26.0	26.5	22.0
16	12.0	6.5	3.0	5.0	9.0	8.0	12.0	16.0	19.0	25.0	25.0	23.0
17	14.0	7.0	1.0	3.5	9.5	10.0	14.0	17.0	22.0	27.0	26.0	19.5
18	14.0	6.0	3.5	3.0	11.0	11.0	14.5	16.0	25.0	28.0	26.0	22.0
19	14.0	7.0	.0	1.0	6.0	10.0	14.0	16.5	25.0	26.0	26.0	23.0
20	14.0	7.5	1.0	5.0	10.0	12.0	14.0	15.0	28.0	26.0	23.0	22.0
21	12.0	4.0	1.0	5.0	10.0	10.0	16.0	18.0	21.0	27.0	25.0	19.0
22	11.0	4.0	.0	3.0	13.0	10.0	15.0	16.0	20.5	26.0	25.0	23.0
23	9.0	5.5	1.0	4.5	8.0	8.0	16.0	18.5	24.0	26.5	26.5	20.5
24	10.0	4.0	2.0	2.0	11.0	12.0	8.0	16.0	26.5	26.0	25.0	22.0
25	10.0	3.0	3.5	4.0	11.0	14.0	8.5	16.0	25.0	25.0	26.0	21.0
26	12.0	3.5	---	4.0	12.5	12.0	8.0	15.0	28.0	22.0	24.0	23.0
27	9.0	3.0	.0	5.0	12.0	11.0	14.0	17.0	26.0	26.0	25.0	22.0
28	8.0	3.5	.0	2.5	12.0	14.0	13.0	18.0	26.0	26.0	25.0	19.0
29	8.0	3.0	1.0	4.0	14.0	10.0	15.0	18.0	26.0	25.0	25.0	18.0
30	7.5	3.5	1.0	4.5	---	10.0	16.5	20.0	20.0	24.0	23.0	22.5
31	7.0	---	.0	4.0	---	8.5	---	21.0	---	25.0	24.0	---
MEAN	12.0	5.5	1.5	3.0	9.0	10.0	11.5	17.5	22.0	26.0	25.0	21.0
WTR YR 1980		MEAN	14.0	MAX	29.0	MIN	.0					

RIO GRANDE BASIN
08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM --- Continued
WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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	225	76	146	328	731	3490	608	1950	552	1790	915	3290
2	293	83	1440	4470	683	3210	338	922	548	1610	1020	3360
3	350	99	400	1630	731	3360	553	1300	425	1250	1000	3560
4	495	147	1050	4250	780	3540	339	799	553	1610	1280	4630
5	361	127	1080	4490	645	3000	340	814	555	1650	810	2820
6	465	201	1100	4540	651	3080	427	1040	625	2060	920	3400
7	549	405	1140	5020	672	3190	285	739	597	1920	1040	3710
8	690	576	1050	4760	572	2760	211	518	490	1440	1010	3140
9	578	524	1120	5110	532	2570	329	805	473	1350	820	2460
10	381	293	2340	11100	555	2700	273	624	415	1270	745	2290
11	355	285	3570	16900	875	4280	203	483	370	1070	1200	3790
12	535	566	2460	11300	595	2890	222	605	412	1390	935	2300
13	411	427	910	4230	820	4100	948	2740	347	1080	800	1550
14	554	565	935	4340	1010	5070	3590	10600	475	1330	2870	5750
15	310	275	929	4260	911	4600	1950	5740	573	1610	10900	22500
16	258	239	793	3530	808	4060	1680	4760	605	1730	500	1000
17	286	232	825	3680	750	3750	2570	7080	425	1340	398	710
18	425	374	885	3920	1590	7940	4630	12800	360	1190	425	731
19	487	375	794	3430	910	4590	2200	6120	6400	19500	538	890
20	495	418	1230	5180	981	4870	4900	13200	8600	26900	605	1040
21	395	334	712	3100	1160	5760	4300	11800	5700	20300	508	863
22	232	228	640	2800	501	2480	1200	3300	5990	21700	475	877
23	213	164	660	2890	433	2140	975	2690	6130	20700	490	909
24	314	248	671	3010	430	2160	808	2160	6660	21600	552	753
25	378	331	713	3210	465	2230	1690	4650	6700	22400	603	703
26	425	411	668	3010	510	2480	1000	3020	8110	27800	790	983
27	243	230	687	2910	485	2420	505	1690	6680	22000	440	653
28	223	209	720	3230	452	2230	500	1540	1330	4240	699	1030
29	150	130	811	3850	416	2020	575	1650	950	3330	625	1080
30	235	276	808	3860	685	3260	675	1910	---	---	725	1530
31	135	215	---	---	634	2570	590	1850	---	---	375	706
TOTAL	---	9063	---	138338	---	106800	---	109899	---	237160	---	83008

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	294	529	2160	26300	4770	76900	1250	10100	231	106	1010	401
2	360	855	1950	24100	3860	61800	775	5860	296	89	928	411
3	297	609	2890	35400	3560	56600	1850	13500	320	74	623	143
4	275	558	2870	36100	1750	27400	2290	16400	358	188	750	119
5	282	530	4110	52400	6070	93900	2150	13900	780	518	600	70
6	256	437	4280	54200	7030	106000	1180	7550	15800	23600	925	125
7	260	411	1640	20000	4720	68800	575	3900	13000	16000	9730	10100
8	272	389	2430	30500	6860	98500	620	3800	12800	16700	23100	21500
9	262	380	728	9650	6090	88600	835	5120	12300	18700	15500	15100
10	255	365	545	7500	4670	74800	1660	9100	12400	23800	17500	129000
11	255	424	750	10300	5260	85200	1900	8980	11100	17000	23000	194000
12	253	443	5500	77100	4570	71300	450	1800	11100	15400	19500	123000
13	237	635	6800	98200	4180	64000	698	2620	9050	10500	17800	88400
14	310	1430	5260	75600	3850	57400	460	1530	8300	10400	14700	45600
15	1170	5340	5310	77800	4400	64000	1430	4900	9580	34100	18800	41800
16	1990	6340	5660	87300	5610	80600	453	1280	8810	31600	17500	38500
17	1950	5140	6710	103000	1190	16600	344	762	7470	16900	2750	5280
18	1640	4110	4980	76100	4000	54200	403	792	1870	3720	2300	3740
19	1630	4050	4500	68300	3540	46700	333	610	965	2600	3770	5260
20	1850	6890	7050	106000	4120	54100	240	299	4800	8680	1250	1720
21	1360	5880	5680	85300	1950	25300	358	304	1600	1430	635	940
22	1260	5310	5580	83800	1810	23100	425	313	835	712	465	591
23	1840	7930	4490	67000	2580	32500	574	191	700	675	421	433
24	5280	29200	4950	74200	3350	41200	406	107	825	866	370	300
25	4790	34500	6150	93500	1400	16800	301	131	3050	2600	357	202
26	5550	46900	5840	90800	3410	38800	397	221	1650	1520	390	182
27	5910	54900	1910	30300	5000	51000	525	275	2110	1400	335	170
28	6390	64700	4030	64600	5210	50800	288	196	4350	3730	165	90
29	7190	74400	7720	125000	1120	9860	289	189	2870	3210	95	48
30	4170	48500	7240	118000	1470	12400	211	129	1700	1200	165	77
31	---	---	6550	107000	---	---	165	94	3880	1930	---	---
TOTAL	---	412085	---	2015350	---	1649160	---	114953	---	269948	---	727302
TOTAL LOAD FOR YEAR:		5873066	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 mi² (76,260 km²), approximately including 2,940 mi² (7,610 km²) 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, 2,109,000 acre-ft (2.60 km³) survey of 1974 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 km³). 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 km³) 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 hm³) Aug. 6, 1954, gage height, 4,258.03 ft (1,297.848 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 1,292,000 acre-ft (1.59 km³) July 10, 11, gage height, 4,380.48 ft (1,335.170 m); minimum daily contents, 834,300 acre-ft (1.03 km³) Oct. 30, 31 gage height, 4,359.22 ft (1,328.690 m).

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

4,280	51.76	4,320	304.2	4,360	848.6
4,290	89.90	4,330	409.4	4,370	1,046.8
4,300	144.2	4,340	534.3	4,380	1,279.0
4,310	216.1	4,350	679.0	4,390	1,549.2

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	839300	834900	910300	942700	935400	934400	966100	942500	1125000	1277000	1242000	1163000
2	838900	836000	912200	941500	936000	936600	965300	947300	1133000	1279000	1237000	1160000
3	838500	837600	913300	940700	937400	938200	962900	952100	1140000	1282000	1230000	1157000
4	837600	840000	913700	939600	938200	940200	960500	956700	1147000	1284000	1226000	1156000
5	837600	842700	914100	940500	936400	942100	958100	962100	1154000	1287000	1222000	1154000
6	837400	844900	914500	941900	936000	944500	954700	966300	1160000	1287000	1218000	1153000
7	837100	847700	914900	941100	936200	946500	952100	970500	1167000	1288000	1216000	1151000
8	836200	850400	917800	939800	935000	948300	948300	975000	1173000	1289000	1212000	1150000
9	835800	852300	920100	938200	935400	950100	945300	979600	1179000	1290000	1207000	1151000
10	835800	854900	921100	937000	936800	951500	942300	985100	1186000	1292000	1204000	1154000
11	835800	857800	921500	936200	936400	953500	940500	990000	1194000	1292000	1201000	1159000
12	835800	860200	921900	937600	935800	954700	936600	996200	1201000	1290000	1196000	1166000
13	836000	863200	922300	939200	935200	955500	934800	1002000	1207000	1289000	1192000	1169000
14	836000	866400	922300	939600	934800	956300	933600	1008000	1213000	1288000	1189000	1171000
15	836200	869400	925200	938600	934200	957500	933400	1015000	1218000	1288000	1188000	1174000
16	836700	872400	928200	937400	936000	958100	932900	1021000	1225000	1287000	1187000	1176000
17	836500	875200	928500	936600	937600	958500	930900	1028000	1230000	1284000	1186000	1177000
18	836200	878400	928700	935800	937800	959500	928900	1035000	1237000	1282000	1184000	1177000
19	835800	880300	929100	937800	936200	960100	926800	1042000	1240000	1280000	1182000	1177000
20	835600	882700	929700	938600	936000	960700	924800	1049000	1244000	1276000	1182000	1177000
21	835400	885700	930300	939200	935800	961900	924000	1055000	1250000	1274000	1179000	1177000
22	835300	887500	933300	938400	935600	962100	922500	1060000	1255000	1271000	1177000	1176000
23	835300	889700	935800	937600	937400	963100	921500	1066000	1260000	1268000	1176000	1176000
24	835600	892200	936200	936800	939600	963500	920700	1072000	1265000	1265000	1174000	1176000
25	835800	895500	936600	935800	938800	964100	921500	1078000	1269000	1262000	1173000	1174000
26	835800	897900	937200	937000	937400	964700	924000	1084000	1273000	1259000	1172000	1174000
27	835800	901000	937600	939200	935800	965500	925600	1041000	1275000	1255000	1170000	1173000
28	835600	903100	938000	938800	934000	965900	930700	1098000	1276000	1252000	1169000	1174000
29	835100	905200	940300	938000	932300	966500	934200	1105000	1277000	1249000	1168000	1174000
30	834300	907900	943100	936600	---	968100	937800	1111000	1277000	1247000	1166000	1174000
31	834300	---	943500	935800	---	969100	---	1119000	---	1244000	1164000	---
MAX	839300	907900	943500	942700	939600	969100	966100	1119000	1277000	1292000	1242000	1177000
MIN	834300	834900	910300	935800	932300	934400	920700	942500	1125000	1244000	1164000	1150000
(+)	4359.22	4363.15	4364.97	4364.58	4364.40	4366.25	4364.68	4373.28	4379.92	4378.58	4375.25	4375.68
(+)	-5100	+73600	+35600	-7700	-3500	+36800	-31300	+181200	+158000	-33000	-80000	+10000

CAL YR 1979 MAX 943500 MIN 184100 (+) +760900

WTR YR 1980 MAX 1292000 MIN 834300 (+) +334600

(+) ELEVATION, IN FEET, AT END OF MONTH

(+) CHANGE IN CONTENTS, IN ACRE-Feet

RIO GRANDE BASIN

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 mi² (76,280 km²), approximately, including 2,940 mi² (7,610 km²) 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-discharge records good except those for June, which are fair. Flow regulated by Elephant Butte Reservoir (station 08360500). Diversion for irrigation of about 800,000 acres (3,200 km²) above station.

AVERAGE DISCHARGE.--65 years, 969 ft³/s (27.44 m³/s), 702,000 acre-ft/yr (866 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 8,220 ft³/s (233 m³/s) May 22, 1942; no flow at times prior to 1929.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,990 ft³/s (56.4 m³/s) Feb. 27; minimum daily, 7.0 ft³/s (0.20 m³/s) Sept. 21, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	8.3	18	1230	1100	23	1760	1890	1880	1430	1410	713
2	17	7.3	18	1220	31	20	1800	1900	1850	1420	1840	992
3	17	7.3	713	1220	27	21	1790	1910	1820	1430	1830	980
4	19	8.4	1190	1120	1040	20	1790	1920	1810	1430	1830	692
5	20	7.9	1200	31	1280	20	1780	1930	1800	1440	1840	701
6	22	8.5	1180	26	1290	20	1780	1940	1800	1450	1830	702
7	23	8.3	1120	1030	1290	20	1770	1940	1800	1460	1820	701
8	22	14	30	1260	1180	20	1770	1940	1800	1260	1820	702
9	24	14	24	1260	30	20	1780	1940	1800	1380	1820	704
10	24	14	973	1280	25	19	1790	1940	1800	1380	1790	33
11	22	14	1210	1190	1050	21	1790	1940	1790	1390	1760	8.1
12	22	14	1220	32	1290	20	1780	1940	1790	1390	1820	8.1
13	21	13	1210	27	1290	21	1790	1940	1790	1370	1830	7.2
14	21	12	1140	1020	1280	22	1790	1940	1800	1370	1830	8.3
15	18	11	28	1250	1190	23	1770	1940	1810	1320	1410	8.0
16	15	11	19	1260	32	23	1760	1930	1810	1390	1340	8.0
17	18	12	1050	1260	28	23	1770	1930	1800	1400	1350	8.0
18	19	11	1260	1210	1060	24	1770	1920	1800	1400	1350	8.0
19	21	12	1210	32	1280	25	1780	1920	1790	1390	1360	8.0
20	22	13	1210	26	1290	25	1790	1910	1780	1400	1350	7.5
21	25	11	1130	1080	1300	28	1800	1900	1770	1390	695	7.0
22	24	12	24	1210	1230	30	1810	1890	1760	1390	685	7.0
23	23	12	18	1210	33	29	1810	1890	1760	1400	697	7.5
24	15	12	1050	1200	28	283	1830	1890	1750	1390	709	85
25	9.9	12	1230	30	1250	14	1840	1890	1740	1390	718	10
26	8.4	12	1230	25	1980	14	1850	1890	1740	1380	704	9.0
27	8.3	11	1230	20	1990	14	1860	1890	1730	1390	703	9.5
28	10	13	1130	940	1980	13	1880	1900	1740	1390	703	9.5
29	11	18	23	30	1720	14	1890	1890	1720	1390	702	10
30	9.2	17	18	1200	---	18	1880	1890	1720	1390	705	10
31	7.3	---	1000	1210	---	18	---	1890	---	1390	712	---
TOTAL	555.1	351.0	24106	25139	28594	905	54050	59370	53550	43190	40963	7163.7
MEAN	17.9	11.7	778	811	986	29.2	1802	1915	1785	1393	1321	239
MAX	25	18	1260	1280	1990	283	1890	1940	1880	1460	1840	992
MIN	7.3	7.3	18	20	25	13	1760	1890	1720	1260	685	7.0
AC-FT	1100	696	47810	49860	56720	1800	107200	117800	106200	85670	81250	14210
CAL YR 1979 TOTAL	313699.33			MEAN 859	MAX 2130	MIN .00	AC-FT 622200					
WTR YR 1980 TOTAL	337936.80			MEAN 923	MAX 1990	MIN 7.0	AC-FT 670300					

RIO GRANDE BASIN
08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM -- Continued
WATER-QUALITY RECORDS

283

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS	SPE- CIFIC CON- DUCT- ANCE	PH	TEMPER- ATURE, AIR	TEMPER- ATURE, WATER	TUR- BID- ITY	OXYGEN, DIS- SOLVED	OXYGEN DEMAND, CHEM- ICAL	HARD- NESS	HARD- NESS, NONCAR- BONATE	CALCIUM DIS- SOLVED	
		(CFS) (00061)	(MICRO- MHOS) (00095)	FIELD (UNITS) (00400)	(DEG C) (00020)	(DEG C) (00010)	(NTU) (00076)	(MG/L) (00300)	(HIGH LEVEL) (MG/L) (00340)	(MG/L AS CAO3) (00900)	(MG/L CAO3) (00902)	(MG/L AS CA) (00915)	
OCT 26...	0926	8.4	438	7.7	16.5	14.5	54	5.1	--	140	37	43	
NOV 21...	1021	11	429	8.1	5.0	10.0	15	9.4	--	140	19	43	
DEC 19...	1019	1210	430	8.1	10.5	9.5	7.4	8.3	--	140	20	44	
JAN 16...	1016	1370	446	8.0	12.0	8.0	1.7	9.6	--	140	25	42	
FEB 22...	1022	1920	484	8.1	13.5	8.0	2.5	10.2	--	140	34	45	
MAR 21...	1021	28	464	9.7	17.5	11.0	3.9	11.3	--	150	34	48	
APR 17...	1017	1650	380	8.1	19.5	11.5	6.0	9.5	--	150	17	46	
MAY 14...	1014	1940	500	8.2	23.5	12.5	4.9	8.1	--	150	27	46	
JUN 20...	0920	1810	520	8.1	29.0	14.0	13	6.2	--	150	32	47	
JUL 17...	0800	1410	479	8.1	26.5	14.0	17	3.9	--	150	22	47	
AUG 22...	1022	669	516	7.9	29.0	16.5	7.6	3.3	--	150	31	47	
SEP 19...	0919	8.0	522	7.6	27.0	16.5	8.0	4.8	28	150	25	48	
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 (MG/L AS CAO3) (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)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT 26...	7.3	31	1.2	4.2	100	75	18	.4	17	270	257	.31	
NOV 21...	7.7	38	1.4	4.4	120	82	21	.4	17	281	286	.13	
DEC 19...	7.4	35	1.3	3.9	120	81	17	.3	17	283	279	.17	
JAN 16...	7.3	35	1.3	3.9	110	82	20	.4	17	312	274	.17	
FEB 22...	7.7	36	1.3	3.9	110	100	21	.4	18	286	299	.14	
MAR 21...	8.4	43	1.5	3.9	120	83	18	.4	16	296	293	.00	
APR 17...	7.9	40	1.4	4.0	130	87	20	.5	17	313	301	.03	
MAY 14...	7.7	38	1.4	4.2	120	86	19	.4	16	305	290	.03	
JUN 20...	8.5	41	1.4	4.4	120	90	27	.4	17	313	308	.13	
JUL 17...	8.4	41	1.4	4.4	130	88	22	.7	17	326	308	1.1	
AUG 22...	8.1	40	1.4	4.2	120	88	23	.4	17	316	301	.16	
SEP 19...	8.4	40	1.4	4.1	130	84	26	.5	18	319	308	.00	

RIO GRANDE BASIN
08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM -- Continued
WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)	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- PENDE (MG/L AS C) (00689)
OCT 26...	.17	--	.090	--	--	.130	--	--	7.0	--	--
NOV 21...	.13	.020	.000	.54	.69	.090	<10	10	--	12	.2
DEC 19...	.17	.020	.030	.47	.66	.080	--	--	9.4	--	--
JAN 16...	.17	.020	.010	.29	.48	.090	--	--	--	--	--
FEB 22...	.11	.060	.060	.50	.70	.090	<10	<1	--	3.6	.3
MAR 21...	.02	.060	.020	.71	.77	.090	--	--	7.0	--	--
APR 17...	.04	.040	.040	1.1	1.1	.120	--	--	5.6	--	--
MAY 14...	.06	.070	.080	.45	.55	.110	30	1	--	6.3	.4
JUN 20...	.13	.060	.080	2.3	2.5	.140	--	--	9.4	--	--
JUL 17...	.21	.030	.010	.61	1.7	.170	--	--	4.7	--	--
AUG 22...	.23	.000	.020	.42	.58	.150	--	--	11	--	--
SEP 19...	.00	.200	.190	.66	.86	.370	<10	330	--	8.1	.7

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIIUM, 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)
NOV 21...	1021	5	5	200	80	0	<1	10	0	0
DEC 19...	1019	--	--	--	--	--	--	--	--	--
FEB 22...	1022	5	4	300	80	0	<1	10	0	0
MAR 21...	1021	--	--	--	--	--	--	--	--	--
MAY 14...	1014	6	4	100	70	0	<1	0	0	1
JUN 20...	0920	--	--	--	--	--	--	--	--	--
AUG 22...	1022	--	--	--	--	--	--	--	--	--
SEP 19...	0919	6	6	0	70	0	<1	10	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 21...	<3	3	0	500	<10	0	2	40	10	.1
DEC 19...	--	--	--	--	--	--	--	--	--	--
FEB 22...	<3	8	0	120	<10	0	2	40	<1	.1
MAR 21...	--	--	--	--	--	--	--	--	--	--
MAY 14...	<3	7	3	2300	30	5	0	10	1	.1
JUN 20...	--	--	--	--	--	--	--	--	--	--
AUG 22...	--	--	--	--	--	--	--	--	--	--
SEP 19...	<3	3	0	340	<10	3	0	330	330	.0

RIO GRANDE BASIN
08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM -- Continued
WATER-QUALITY RECORDS

285

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
NOV 21...	.0	2	4	0	0	0	0	0	<3
DEC 19...	--	--	--	--	--	0	--	--	--
FEB 22...	.0	0	1	0	0	0	0	30	<3
MAR 21...	--	--	--	--	--	0	--	--	--
MAY 14...	.0	8	3	0	0	0	0	20	<3
JUN 20...	--	--	--	--	--	0	--	--	--
AUG 22...	--	--	--	--	--	0	--	--	--
SEP 19...	.0	2	1	0	0	0	0	20	5

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 26...	0926	25	13
NOV 21...	1021	4	2
DEC 19...	1019	1	0
JAN 16...	1016	1	5
FEB 22...	1022	1	6
MAR 21...	1021	0	7
APR 17...	1017	0	2
MAY 14...	1014	0	0
JUN 20...	0920	2	2
AUG 22...	1022	8	2
SEP 19...	0919	59	27

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 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE TIME	NOV 21,79	FEB 22,80	MAY 14,80	JUN 20,80	AUG 22,80	SEP 19,80
TOTAL CELLS/ML	1021	1022	1014	0920	1022	0919
DIVERSITY: DIVISION	1100	1500	540	260	390	1000
...CLASS	0.0	0.5	0.3	1.1	0.8	1.7
...ORDER	0.0	0.5	0.3	1.1	0.8	1.7
...FAMILY	0.4	0.8	0.3	1.3	1.2	2.4
...GENUS	0.9	0.9	0.5	1.5	1.4	3.3
	1.0	1.4	0.5	1.9	1.4	3.3
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
..CHLOROCOCCALES						
..CHARACIACEAE						
...SCHROEDERIA	--	-	--	-	13	5
...MICRACTINIACEAE	--	-	--	-	--	-
...GOLENKINIA	--	-	--	-	--	-
...OOCYSTACEAE	--	-	--	-	--	-
...CHLORELLA	--	-	13	2	--	-
...KIRCHNERIELLA	--	-	80	5	--	-
...OOCYSTIS	--	-	27	2	--	-
...SCENEDESMACEAE	--	-	--	-	--	-
...SCENEDESMUS	--	-	--	-	26	10
...VOLVOCALES	--	-	--	-	--	-
...CHLAMYDOMONADACEAE	--	-	27	2	--	-
...CHLAMYDOMONAS	--	-	--	-	--	-
...VOLVOCAEAE	--	-	--	-	--	-
...PANDORINA	--	-	--	-	--	-
CHRYSOPHYTA						
..BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
...CYCLOTELLA	20	2	1200#	75	150#	60
...MELOSIRA	--	-	--	-	26	10
...SKELETONEMA	60	5	160	10	--	-
...PENNALES						
..ACHNANTHACEAE						
...COCONEIS	--	-	13	1	13	5
...RHOICOSPHEA	10	1	--	-	--	-
..DIATOMACEAE						
...DIATOMA	--	-	--	-	--	-
...FRAGILARIACEAE	--	-	--	-	--	-
...ASTERIONELLA	--	-	--	-	--	-
...SYNEDRA	--	-	67	4	--	-
...GOMPHONEMATACEAE						
...GOMPHONEMA	10	1	--	-	--	-
...NAVICULACEAE						
...NAVICULA	89	8	--	-	26	7
...NITZSCHACEAE			13	2	--	-
...NITZSCHIA	900#	83	--	-	13	3
CRYPTOPHYTA (CRYPTOMONADS)						
..CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOMONADACEAE						
...CRYPTOMONAS	--	-	13	2	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
...ANACYSTIS	--	-	--	-	39	10
..HORMOGONALES						
...OSCILLATORIACEAE						
...OSCILLATORIA	--	-	--	-	280#	73
EUGLENOPHYTA (EUGLENOIDS)						
..EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
...EUGLENA	--	-	--	-	13	3
PYRRHOPHYTA (FIRE ALGAE)						
..DINOPHYCEAE						
..PERIDINIALES						
...GLENODINIACEAE						
...GLENODINIUM	--	-	13	1	26	10

08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM -- Continued

WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	LENGTH OF EXPO- SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00022)	PERI- PHYTON BIOMASS TOTAL 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
NOV 21...	1021	25	16.3	13.5	23.3	4.40	120	Polyethylene strip
MAY 14...	1014	28	17.4	14.7	29.4	.000	91.8	"
JUN 20...	0920	38	4.49	3.07	10.6	4.11	134	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (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 26...	0926	8.4	14.5	86	2.0	97
NOV 21...	1021	11	10.0	20	.59	99
DEC 19...	1019	1210	9.5	18	59	49
JAN 16...	1016	1370	8.0	5	18	79
FEB 22...	1022	1920	8.0	4	21	81
MAR 21...	1021	28	11.0	6	.45	87
APR 17...	1017	1650	11.5	2	8.9	32
MAY 14...	1014	1940	12.5	3	16	99
JUN 20...	0920	1810	14.0	14	68	92
AUG 22...	1022	669	16.5	10	18	82
SEP 19...	0919	8.0	16.5	26	.56	99

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 mi² (79,510 km²), approximately, including 2,940 mi² (7,610 km²) 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 hm³) between gage heights 4,104 ft (1,250.9 m) bottom of tunnel entrance of gates and 4,182 ft (1,274.7 m) gage height above which spillway gates operate automatically. No dead storage. Storage held for flood control, 100,000 acre-ft (123 hm³). Figures given herein represent usable contents and are computed from mean daily gage heights. Water released from Elephant Butte Reservoir for power development is stored in Caballo Reservoir and released for irrigation on Rio Grande project for Bureau of Reclamation.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 347,000 acre-ft (428 hm³) Mar. 4, 1942, gage height, 4,182.06 ft (1,274.692 m); minimum daily contents, 118 acre-ft (0.145 hm³), Oct. 14, 1938, gage height, 4,108.1 ft (1,252.15 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 148,100 acre-ft (183 hm³) Feb. 29, gage height, 4,160.89 ft (1,268.239 m); minimum daily contents, 15,330 acre-ft (18.9 hm³) Sept. 22, gage height, 4,130.31 ft (1,258.918 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 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17740	21390	24270	75790	117900	146500	59200	93980	115700	93770	46830	39810
2	17870	21480	24320	78250	118700	144000	60310	95300	115200	91580	45450	38000
3	18020	21530	25090	81360	118500	141700	60890	96790	115100	89510	44520	36380
4	18210	21650	27520	83780	118800	141200	62420	98620	115000	87520	44180	34190
5	18390	21700	30350	84730	120700	138500	64100	100700	114900	85740	44000	31850
6	18580	21790	32960	84780	122900	135700	65780	102200	114700	84080	43830	30240
7	18820	21860	35720	85280	125300	133000	67700	103700	114500	82520	43530	29430
8	19080	21980	37180	87100	128300	130400	68690	105000	114000	81210	43230	28860
9	19130	22150	37310	89040	128700	127700	69050	106200	113600	79940	43070	28830
10	19150	22310	37900	91140	128600	124900	69400	107100	113400	78590	43530	29700
11	19240	22460	40380	93440	129100	122500	70210	107900	112700	77240	43400	28860
12	19380	22500	42940	94530	131200	119600	70840	109200	111600	76080	44590	27670
13	19490	22570	45660	94640	133200	116400	71380	110000	111100	74820	46410	26450
14	19610	22640	48330	95240	135200	113500	72580	110700	111200	73930	48760	25560
15	19720	22760	49630	97700	137100	110600	74070	111600	111200	72720	50600	24920
16	19860	22840	49740	99880	138000	108000	75790	112300	111200	71610	51540	24070
17	19950	22880	50380	101700	137600	104800	77330	113300	110900	70390	52600	22860
18	20060	23000	52980	103200	137600	101600	78730	114200	110100	68960	53770	21360
19	20110	23100	55520	103400	139000	98340	80130	114500	108900	67340	55090	19650
20	20170	23220	58010	102600	140700	95020	81670	115100	107600	65780	55600	17740
21	20380	23400	60520	102100	142000	91740	82920	115500	106700	64480	55050	16120
22	20400	23450	61510	104200	142700	88720	83880	115700	105800	63020	53060	15330
23	20470	23500	61550	106000	143100	85580	84780	116000	104900	61340	51320	15570
24	20560	23620	62300	107600	142100	82870	85790	116600	104200	59940	49740	15650
25	20670	23700	64610	109500	141100	79550	86780	117100	103200	58370	48330	16060
26	20790	23770	67120	110300	142900	76320	87880	117800	102100	56670	46930	16500
27	20900	23950	69580	109700	144500	73140	89090	118100	101000	54690	45620	16670
28	21040	24070	71890	110000	146400	69900	90030	117600	99250	53170	44280	16880
29	21130	24100	72820	111900	148100	66640	91030	117100	97300	51580	43130	17020
30	21200	24140	72860	114000	---	63230	92510	116800	95410	50130	41980	17160
31	21340	---	73560	115900	---	60560	---	116200	---	48690	40770	---
MAX	21340	24140	73560	115900	148100	146500	92510	118100	115700	93770	55600	39810
MIN	17740	21390	24270	75790	117900	60560	59200	93980	95410	48690	40770	15330
(+)	4133.08	4134.25	4148.49	4156.22	4160.89	4145.53	4152.27	4156.27	4152.80	4142.46	4140.14	4131.20
(+)	+3820	+2800	+49420	+42340	+32200	-87540	+31950	+23690	-20790	-46720	-7920	-23610

CAL YR 1979 MAX 128500 MIN 14880 (+) +31640
WTR YR 1980 MAX 148100 MIN 15330 (+) -360

(+) 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 mi² (79,510 km²), approximately, including 2,940 mi² (7,610 km²) 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 hm³), 1958 survey and Elephant Butte Reservoir (station 08360500) capacity, 2,109,000 acre-ft (2.60 km³), 1974 survey. Diversions for irrigation of about 800,000 acres (3,200 km²) above station. Figures of daily discharge do not include Bonita ditch which diverts from Caballo Dam and bypasses station for irrigation below. See monthly table below for record of ditch.

COOPERATION.--Records furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--42 years, 848 ft³/s (24.02 m³/s), 614,400 acre-ft/yr (758 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 7,650 ft³/s (217 m³/s) May 20, 1942; minimum daily, 0.1 ft³/s (0.003 m³/s) Oct. 31 to Nov. 14, 1954, Nov. 7 to Dec. 31, 1955, Feb. 15-29, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,480 ft³/s (70.2 m³/s) June 28; minimum daily, 0.50 ft³/s (0.014 m³/s) Nov. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	1.2	1.4	1.4	156	1250	1520	1090	1790	2210	2190	1200
2	1.9	1.3	1.5	1.4	156	1210	1510	1280	1780	2400	2370	1500
3	1.9	1.4	1.7	1.4	156	1190	1450	1150	1730	2400	2400	1750
4	1.9	1.5	1.6	1.4	155	1090	1220	924	1670	2170	2290	1910
5	1.8	1.6	1.5	1.4	87	1010	1070	924	1660	2140	2110	1570
6	1.8	1.6	1.4	1.4	12	1010	1040	1010	1760	2140	2100	1420
7	1.8	1.7	1.2	1.4	3.0	1130	899	1100	1850	2010	2180	1160
8	1.7	1.8	1.1	1.4	47	1230	1290	1100	1870	1720	2170	973
9	1.7	1.8	1.0	1.4	3.0	1200	1650	1160	1880	1960	2130	828
10	1.7	1.8	.90	1.4	3.0	1220	1650	1220	1990	2000	1820	727
11	1.6	1.8	1.0	1.4	3.0	1360	1660	1220	2080	2000	1940	668
12	1.6	1.8	1.0	1.4	91	1520	1510	1200	2080	1960	1570	657
13	1.6	1.9	1.1	1.4	152	1520	1370	1320	1840	1960	1190	629
14	1.5	1.9	1.2	1.4	180	1460	1310	1360	1650	1770	1020	544
15	1.5	1.9	1.2	1.4	193	1420	1160	1350	1650	1800	911	535
16	1.5	1.9	1.3	1.4	191	1410	1000	1380	1650	1910	924	522
17	1.4	1.8	1.4	169	192	1390	968	1420	1930	1910	871	645
18	1.4	1.6	1.4	393	191	1530	1120	1400	2210	2070	808	718
19	1.4	1.5	1.5	397	289	1670	1200	1420	2220	2190	804	793
20	1.3	1.3	1.5	382	374	1680	1120	1520	2210	2080	1070	837
21	1.3	1.2	1.5	382	370	1650	1080	1600	2210	1920	1320	769
22	1.2	1.1	1.5	296	463	1650	1220	1600	2140	1970	1470	364
23	1.2	.90	1.5	206	553	1630	1410	1470	2090	2140	1520	5.0
24	1.2	.80	1.5	219	553	1620	1380	1390	2130	2080	1510	1.2
25	1.1	.60	1.5	212	621	1740	1310	1380	2190	2040	1340	1.2
26	1.1	.50	1.5	209	938	1820	1280	1380	2210	2210	1300	1.2
27	1.1	.70	1.4	191	1150	1800	1280	1660	2360	2210	1320	1.2
28	1.0	.80	1.4	162	1160	1780	1280	1950	2480	2150	1320	1.2
29	1.0	1.0	1.4	156	1210	1770	1240	1940	2460	2100	1260	1.2
30	1.1	1.2	1.4	156	---	1740	1090	1930	2250	2090	1200	1.2
31	1.2	---	1.4	156	---	1560	---	2040	---	2090	1200	---
TOTAL	45.5	41.90	41.90	3708.4	9652.0	45260	38287	42888	60020	63800	47628	20732.4
MEAN	1.47	1.40	1.35	120	333	1460	1276	1383	2001	2058	1536	691
MAX	2.0	1.9	1.7	397	1210	1820	1660	2040	2480	2400	2400	1910
MIN	1.0	.50	.90	1.4	3.0	1010	899	924	1650	1720	804	1.2
AC-FT	90	83	83	7360	19140	89770	75940	85070	119000	126500	94470	41120
(+)	0	0	0	0	12	134	5	47	178	127	78	18

CAL YR 1979 TOTAL 286714.00 MEAN 786 MAX 2420 MIN .50 AC-FT 568700
WTR YR 1980 TOTAL 332105.10 MEAN 907 MAX 2480 MIN .50 AC-FT 658700

(+) DIVERSION, IN ACRE-FT, BY BONITA DITCH. BONITA DITCH DIVERTS DIRECTLY FROM CABALLO DAM AND THIS DIVERSION IS NOT INCLUDED IN THE RIVER RECORDS.

RIO GRANDE BASIN

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 mi² (83,415 km²), approximately, including 2,940 mi² (7,610 km²) 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.--43 years (water years 1938-80), 502 ft³/s (14.22 m³/s), 363,700 acre-ft/yr (448 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,000 ft³/s (680 m³/s) June 12, 1905; no flow at times. Maximum discharge since construction of Elephant Butte Dam in 1915, 13,500 ft³/s (382 m³/s) Sept. 3, 1925.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,410 ft³/s (39.9 m³/s) Aug. 14, gage height, 5.14 ft (1.567 m); minimum, 42.7 ft³/s (1.21 m³/s) Dec. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	248	100	69.2	60.1	194	381	853	706	971	1180	903	588
2	255	102	66.7	60.2	196	414	675	533	1120	962	992	560
3	239	100	64.3	60.3	187	450	608	530	1020	914	1080	564
4	215	99.5	62.0	60.3	183	486	560	750	997	1030	1180	583
5	200	96.2	61.7	60.3	179	527	524	887	878	1120	1210	582
6	201	95.4	61.4	60.3	162	566	620	645	740	1120	1160	774
7	202	93.3	61.1	60.3	150	504	588	588	738	1120	1010	1010
8	188	91.4	61.7	58.5	139	490	546	586	835	1200	909	945
9	169	88.1	61.4	58.5	170	518	402	563	904	1210	1050	811
10	145	88.5	61.2	58.5	137	570	435	584	949	816	1010	782
11	142	87.6	59.9	58.5	87.4	604	740	628	941	951	1210	849
12	131	88.0	60.0	58.5	86.6	616	828	710	994	936	840	582
13	124	88.2	56.5	58.5	82.1	582	944	695	987	928	1250	504
14	128	85.0	57.5	58.5	77.1	509	950	652	1010	906	1410	573
15	76.0	79.8	55.1	58.5	70.4	521	863	591	942	910	1130	535
16	114	78.8	54.6	58.5	71.8	518	793	606	882	854	995	529
17	108	76.8	57.5	61.5	79.4	496	714	663	895	689	778	432
18	114	75.8	57.6	62.3	68.5	493	609	755	834	741	759	378
19	124	77.1	57.2	64.3	80.1	541	576	783	878	755	712	326
20	118	80.4	57.3	73.0	70.4	525	607	734	884	864	685	326
21	114	80.5	56.2	269	67.2	503	604	672	929	978	539	277
22	106	80.6	57.5	364	77.2	502	602	654	942	985	440	257
23	102	79.6	58.2	390	80.8	519	543	656	1010	896	570	276
24	102	78.6	57.8	385	140	530	529	640	938	738	718	286
25	104	79.9	58.4	318	97.0	524	531	595	904	955	753	299
26	104	78.9	58.0	286	96.2	522	554	583	857	1000	787	325
27	104	76.9	55.8	272	176	543	547	554	806	1060	818	297
28	104	76.6	58.2	257	168	610	588	642	850	1120	675	297
29	104	75.2	58.3	244	388	606	653	801	1060	1110	628	355
30	96.5	72.7	58.9	230	---	681	713	798	1170	1070	602	300
31	98.8	---	59.1	215	---	851	---	809	---	1020	543	---
TOTAL	4380.3	2551.4	1840.3	4439.4	3761.2	16702	19299	20593	27865	30138	27346	15202
MEAN	141	85.0	59.4	143	130	539	643	664	929	972	882	507
MAX	255	102	69.2	390	388	851	950	887	1170	1210	1410	1010
MIN	76.0	72.7	54.6	58.5	67.2	381	402	530	738	689	440	257
AC-FT	8688	5061	3650	8805	7460	33128	38279	40846	55269	59778	54240	30153
CAL YR 1979	TOTAL	157599.5	MEAN	432	MAX	2540	MIN	12.6	AC-FT	312594		
WTR YR 1980	TOTAL	174117.6	MEAN	476	MAX	1410	MIN	54.6	AC-FT	345357		

08364000 RIO GRANDE AT EL PASO, TX -- Continued

WATER-QUALITY RECORDS

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, 28.0°C July 17, 1978; minimum daily, 2.0°C Jan. 19, 1978.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,560 micromhos Jan. 15; minimum daily, 642 micromhos March 31.

WATER TEMPERATURES: Maximum daily, 27.0°C July 16; minimum daily, 4.0°C Dec. 14, 27-28.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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												
15...	1430	145	2130	8.4	33.5	21.0	12	9.0	490	230	140	34
16...	0910	109	2150	8.2	--	14.5	--	--	480	210	140	31
NOV												
14...	1000	85	1800	8.3	13.0	7.0	8.1	11.4	490	220	140	34
19...	0817	78	2330	8.1	--	8.0	--	--	460	190	130	34
DEC												
14...	0930	67	2280	8.3	4.0	4.0	8.4	9.8	480	210	140	32
19...	0910	60	2370	7.6	--	6.5	--	--	490	200	140	34
JAN												
15...	0900	48	2560	8.0	--	8.0	--	--	500	230	140	37
15...	0930	48	2450	8.2	13.0	7.0	19	10.6	490	210	140	34
FEB												
12...	1130	66	2120	7.9	--	9.0	--	--	450	190	130	30
14...	1000	77	2180	8.3	14.0	6.0	22	10.4	450	210	130	30
MAR												
18...	0930	510	997	8.3	10.0	8.0	110	12.0	240	80	73	14
19...	0840	500	941	7.9	--	11.5	--	--	220	59	68	13
APR												
15...	0900	870	730	8.3	18.0	13.5	100	8.6	230	16	69	13
18...	0855	522	982	7.9	--	15.0	--	--	260	84	78	15
MAY												
21...	0925	790	867	7.9	--	23.0	--	--	230	56	70	13
JUN												
10...	1030	1010	840	8.4	33.0	24.0	68	7.2	230	66	69	13
19...	1010	834	875	7.7	--	22.0	--	--	230	56	70	13
JUL												
16...	1300	755	961	8.1	--	27.0	--	--	250	64	75	14
AUG												
15...	0926	1160	890	7.7	--	24.0	--	--	250	75	75	14
19...	1000	720	1000	8.7	30.0	25.0	62	7.4	270	83	83	16
SEP												
16...	1257	3.3	1320	7.8	--	25.5	--	--	310	100	94	19

08364000 RIO GRANDE AT EL PASO, TX -- Continued
RIO GRANDE BASIN
WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CAO3) (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 SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)
OCT												
15...	290	5.7	14	--	--	260	510	240	.8	28	1420	1410
16...	300	6.0	14	320	0	260	500	250	--	23	--	1420
NOV												
14...	340	6.7	12	--	--	270	550	270	.8	29	1500	1540
19...	350	7.1	12	330	0	270	540	280	--	27	--	1540
DEC												
14...	350	6.9	13	--	--	270	540	270	.8	29	1540	1540
19...	350	6.9	13	350	0	290	540	280	--	38	--	1570
JAN												
15...	380	7.4	12	330	0	270	620	330	--	33	--	1710
15...	380	7.5	13	--	--	280	560	310	.8	28	1650	1630
FEB												
12...	290	6.0	11	310	0	250	460	260	--	26	--	1360
14...	320	6.6	12	--	--	240	500	260	.8	38	1450	1440
MAR												
18...	120	3.4	6.3	--	--	160	200	98	.5	18	624	627
19...	100	2.9	6.2	200	0	160	170	81	--	18	--	555
APR												
15...	100	2.9	6.4	--	--	210	100	90	.6	18	--	524
18...	110	3.0	7.3	210	0	170	190	88	--	20	--	612
MAY												
21...	96	2.8	7.4	210	0	170	160	66	--	19	--	535
JUN												
10...	97	2.8	6.7	--	--	160	180	74	.5	18	566	555
19...	92	2.7	7.0	210	0	170	160	66	--	19	--	531
JUL												
16...	110	3.1	7.6	220	0	180	190	77	--	21	--	603
AUG												
15...	96	2.7	7.5	210	0	170	200	78	--	21	--	594
19...	130	3.4	8.4	--	--	190	230	100	.6	21	727	703
SEP												
16...	160	3.9	9.5	260	0	213	280	140	--	23	--	854

[illegible]

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
NOV 14...	1000	6	6	400	300	0	0	4	0	0
DEC 14...	0930	--	--	--	--	--	--	--	--	--
FEB 14...	1000	7	8	300	300	1	2	10	0	0
MAR 18...	0930	--	--	--	--	--	--	--	--	--
JUN 10...	1030	6	6	100	70	0	<1	0	0	2
AUG 19...	1000	--	--	--	--	--	--	--	--	--

DATE	COBAL,T, 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 14...	0	15	0	560	20	9	1	130	50	.1
DEC 14...	--	--	--	--	--	--	--	--	--	--
FEB 14...	0	9	0	1100	20	7	0	240	40	.0
MAR 18...	--	--	--	--	--	--	--	--	--	--
JUN 10...	<3	11	4	2900	<10	5	1	270	3	.1
AUG 19...	--	--	--	--	--	--	--	--	--	--

DATE	TIME	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 RECOV- ERABLE (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 14...		.0	6	0	0	0	0	0	130	70
DEC 14...		--	--	--	--	--	0	--	--	--
FEB 14...		.1	0	0	0	0	0	0	130	10
MAR 18...		--	--	--	--	--	0	--	--	--
JUN 10...		.0	6	5	0	0	0	0	30	4
AUG 19...		--	--	--	--	--	1	--	--	--

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 15...	1430	380	370	310
NOV 14...	1000	--	230	470
DEC 14...	0930	550	290	1200
JAN 15...	0930	--	180	730
FEB 14...	1000	1300	630	1200
MAR 18...	0930	--	230	650
APR 15...	0900	880	190	660
JUN 10...	1030	930	220	790
AUG 19...	1000	400	830	1300

RIO GRANDE BASIN

08364000 RIO GRANDE AT EL PASO, TX -- Continued

WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 14,79		MAR 18,80		JUN 10,80		AUG 19,80	
TIME	1000		0930		1030		1000	
TOTAL CELLS/ML	10000		8800		9500		35000	
DIVERSITY: DIVISION	0.4		1.1		1.0		1.2	
..CLASS	0.4		1.1		1.0		1.2	
..ORDER	0.5		1.8		1.3		1.5	
...FAMILY	0.8		2.0		1.5		2.1	
....GENUS	0.8		2.4		2.3		2.8	
ORGANISM	CELLS	PER-	CELLS	PER-	CELLS	PER-	CELLS	PER-
	/ML	CENT	/ML	CENT	/ML	CENT	/ML	CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
....CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	360	4	--	-
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	3000	8
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	--	-	1100	3
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	150	2	60	1	560	2
....CHLORELLA	--	-	--	-	120	1	--	-
....CHODATELLA	--	-	--	-	120	1	--	-
....KIRCHNERIELLA	--	-	910	10	--	-	370	1
...OOCYSTIS	--	-	760	9	60	1	--	-
....SELENASTRUM	--	-	--	-	--	-	190	1
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	1500	4
....SCENEDESMUS	--	-	--	-	120	1	6300#	18
...TETRASTRUM	--	-	--	-	240	3	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	150	2	60	1	560	2
...PHACOTACEAE								
....PTEROMONAS	--	-	--	-	--	-	190	1
CHRYSOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	190	2	4300#	49	4500#	47	12000#	34
....MELOSIRA	--	-	150	2	2400#	25	6500#	18
...PENNALES								
....NAVICULACEAE								
....NAVICULA	470	5	380	4	60	1	--	-
...NITZSCHACEAE								
....NITZSCHIA	8800#	86	1400#	16	480	5	1900	5
...SURIARELLACEAE								
....SURIARELLA	--	-	76	1	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROOCOCCALES								
....CHROOCOCCACEAE								
....AGMENELLUM	760	7	--	-	--	-	--	-
....ANACYSTIS	--	-	300	3	970	10	1300	4
EUGLENOPHYTA (EUGLENOIDS)								
..EUGLENOPHYCEAE								
...EUGLENALES								
....EUGLENACEAE								
....EUGLENA	--	-	76	1	--	-	--	-
....TRACHELOMONAS	--	-	150	2	--	-	--	-

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 1979 TO SEPTEMBER 1980
PERIPHYTON

DATE	TIME	LENGTH OF EXPO- SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00022)	PERI- PHYTON BIOMASS TOTAL 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
FEB 14...	1000	30	4.41	3.78	4.21	3.11	150	Polyethylene strip

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 15...	1430	145	21.0	53	21	73
NOV 14...	1000	85	7.0	40	9.2	55
DEC 14...	0930	67	4.0	31	5.6	69
JAN 15...	0930	48	7.0	46	6.0	93
FEB 14...	1000	77	6.0	50	10	92
MAR 18...	0930	510	8.0	241	332	88
APR 15...	0900	870	13.5	347	815	80
JUN 10...	1030	1010	24.0	207	564	86
AUG 19...	1000	720	25.0	589	1150	24

RIO GRANDE BASIN
08364000 RIO GRANDE AT EL PASO, TX --- Continued
WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

ONCE-DAILY												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1860	2270	2340	2370	1390	769	734	1010	865	956	948	1080
2	1900	2290	2340	2370	1480	766	961	1010	891	969	831	1050
3	1910	2310	2330	2400	1610	1000	933	1020	844	883	883	1200
4	1920	2320	2330	2430	1370	932	930	947	802	940	872	1060
5	1980	2310	2370	2440	1410	989	977	974	1010	861	870	1200
6	1930	2310	2310	2430	1470	791	825	1020	876	844	868	1140
7	1940	2310	2330	2410	1470	923	1000	980	925	865	1140	1110
8	2020	2240	2340	2410	1630	912	930	963	1040	956	1450	1410
9	2020	2310	2340	2430	1490	882	1040	1030	821	930	983	931
10	2030	2280	2350	2450	2050	817	1170	922	915	928	1380	806
11	2040	2280	2420	2470	2060	751	916	1020	882	870	964	1150
12	2050	2240	2380	2430	2040	930	781	974	917	941	997	1720
13	2100	2240	2360	2470	2060	771	1070	944	858	866	943	1070
14	2120	2260	2320	2520	2110	987	1040	939	1070	791	1120	1300
15	2120	2280	2290	2500	2030	845	958	914	1970	956	1440	1420
16	2130	2260	2280	2520	2320	1030	912	942	908	899	1490	1750
17	2100	2320	2310	2500	2150	954	983	974	802	1030	1140	1760
18	2140	2280	2350	2480	2140	1000	882	939	908	961	1190	1320
19	2180	2290	2340	2530	2080	979	894	985	860	994	1080	1710
20	2160	2290	2360	2480	2110	871	839	958	819	887	961	1700
21	2180	2300	2340	2270	2080	934	1030	932	860	1000	1170	1680
22	2170	2290	2370	1070	2320	995	975	988	969	928	1160	888
23	2150	2290	2390	1020	2200	979	1040	988	825	916	1050	1650
24	2140	2290	2380	981	2270	974	1070	823	800	895	1050	1690
25	2130	2310	2380	968	1790	937	917	924	862	872	910	1940
26	2160	2320	2390	1290	1440	780	787	960	964	864	956	1570
27	2320	2310	2260	1250	1900	932	963	1030	937	923	1030	1210
28	2300	2310	2260	1280	1410	899	889	911	802	783	879	1200
29	2300	2310	2310	1220	1520	749	1020	997	927	893	916	1690
30	2200	2340	2370	1290	---	738	1010	958	889	853	879	1030
31	2230	---	2370	1340	---	642	---	1010	---	838	928	---
MEAN	2090	2290	2340	2030	1840	886	949	967	927	906	1050	1350
WTR YR 1980	MEAN	1470	MAX	2530	MIN	642						

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

ONCE-DAILY												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.5	15.5	5.5	6.5	9.5	12.0	17.5	18.5	17.0	17.5	18.0	17.5
2	15.0	14.0	5.0	8.5	10.5	10.5	17.0	17.0	16.5	18.0	20.0	18.0
3	10.5	12.0	7.5	7.5	12.0	9.5	17.5	16.5	19.0	18.0	18.5	18.5
4	11.5	13.5	5.0	8.5	7.5	13.5	16.5	15.0	22.0	21.5	26.5	20.5
5	13.0	12.5	5.5	5.5	11.5	9.0	14.0	20.0	18.5	21.0	21.0	22.5
6	14.5	11.5	5.5	8.0	12.0	11.5	19.5	20.5	19.0	16.5	17.5	16.5
7	12.0	13.0	5.0	7.0	10.5	9.0	18.5	23.0	20.5	15.5	16.0	16.0
8	12.5	11.0	7.5	8.5	4.5	13.5	18.5	18.5	21.0	15.0	18.5	17.0
9	10.5	10.5	8.0	5.0	5.0	10.5	20.5	18.0	17.0	14.0	22.0	17.5
10	11.5	10.0	5.5	6.5	6.5	13.0	15.0	18.5	15.5	18.5	24.0	18.5
11	13.0	9.0	7.0	5.0	8.0	15.5	15.5	19.0	18.0	17.0	24.5	19.0
12	14.5	8.0	4.5	8.5	6.5	17.0	14.5	19.5	19.5	16.5	18.0	15.5
13	12.5	8.5	6.5	9.0	5.5	16.5	15.5	20.5	21.0	17.5	18.5	14.0
14	12.0	7.5	6.0	9.5	7.5	16.0	17.0	16.5	22.5	16.5	19.5	14.5
15	12.5	7.0	5.0	7.5	9.0	16.5	14.0	17.5	18.5	14.0	20.5	15.5
16	13.0	7.0	5.0	10.0	10.5	10.5	19.0	17.0	19.5	14.0	21.5	16.0
17	14.0	8.0	5.5	8.5	8.5	12.0	16.5	18.5	20.0	15.5	22.0	16.5
18	16.5	8.5	5.0	9.0	11.5	13.5	18.5	20.5	18.0	16.0	23.5	17.0
19	14.0	6.5	7.0	7.5	12.0	14.5	20.0	24.5	21.0	17.5	18.0	14.0
20	11.5	5.0	7.5	9.5	9.5	15.5	18.0	23.5	22.0	22.5	18.0	13.5
21	12.0	5.5	5.5	7.5	8.5	17.5	19.0	22.5	17.5	23.0	17.0	13.0
22	10.5	5.0	5.5	7.0	11.5	16.5	20.0	20.5	20.0	19.0	16.5	12.5
23	11.0	4.5	8.5	5.0	13.5	15.0	18.5	18.0	19.0	20.0	15.5	11.0
24	12.0	6.0	9.0	7.5	11.5	15.5	16.0	17.5	22.0	21.5	25.5	15.5
25	14.0	5.0	4.5	6.0	12.0	14.5	17.5	19.0	18.0	19.0	26.5	20.5
26	16.0	6.5	5.0	8.0	9.5	19.0	14.0	20.5	17.5	18.0	24.0	21.5
27	14.5	7.5	4.0	9.5	13.5	17.0	15.5	21.0	16.0	17.0	22.0	19.5
28	15.0	8.0	4.0	6.0	11.0	17.5	13.0	23.5	19.0	16.5	21.0	18.5
29	13.5	5.0	4.5	7.5	11.5	14.5	16.5	22.0	20.0	15.0	20.0	17.0
30	13.0	7.0	5.0	9.0	---	19.0	17.5	18.5	11.5	15.5	21.0	16.0
31	14.0	---	7.5	5.5	---	15.5	---	23.0	---	13.5	22.0	---
MEAN	13.0	8.5	6.0	7.5	9.5	14.0	17.0	19.5	19.0	17.5	20.5	17.0
WTR YR 1980	MEAN	14.0	MAX	26.5	MIN	4.0						

RIO GRANDE BASIN
08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX
(National stream-quality accounting network)

297

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 mi² (82,735 km²), 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° Sept. 5, 1979; minimum daily, 0.5°C Jan. 25, 1978.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE.--Maximum daily 10,600 micromhos July 2-3; minimum daily, 709 micromhos Sept. 5.

WATER TEMPERATURES.--Maximum 35.5°C July 2; minimum 3.5° Feb. 7.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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) (00902)	CALCIUM DIS- SOLVED (MG/L AS Ca) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg) (00925)
OCT 16...	1100	E16	5200	8.2	25.5	15.5	88	9.0	1200	960	330	97
NOV 14...	1400	70	3100	8.3	20.0	10.5	43	10.8	740	490	210	53
DEC 14...	1300	51	5810	8.3	6.0	5.5	32	12.0	1100	830	300	89
JAN 15...	1330	E14	6230	8.5	24.0	8.5	20	15.8	1200	910	320	94
FEB 14...	1430	E20	6960	8.5	24.0	9.0	3.6	18.2	1200	910	300	99
MAR 18...	1300	12	8640	8.2	21.0	12.0	200	9.8	1600	1300	430	120
APR 15...	1200	E9.0	9550	8.2	31.0	22.0	33	9.6	1600	1400	420	140
JUN 10...	1400	10	8000	8.0	36.5	34.0	110	11.4	1800	1600	120	370
AUG 19...	1430	269	2100	8.3	31.5	27.0	350	7.3	470	280	140	30

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- LILITY (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 CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT 16...	950	12	18	260	1100	1400	.9	29	4270	4080	.15
NOV 14...	600	9.6	14	250	720	750	.9	26	2590	2530	1.2
DEC 14...	900	12	15	290	950	1200	.9	27	3760	3660	.85
JAN 15...	970	12	16	280	1200	1300	.8	26	4080	4100	.71
FEB 14...	1100	14	16	250	1100	1600	.8	33	4380	4400	.77
MAR 18...	1400	15	16	270	1300	2200	.8	24	5850	5650	.02
APR 15...	1500	16	17	230	890	2200	.8	23	6400	5330	.03
JUN 10...	1200	12	18	270	1400	1900	.7	27	5670	5200	.00
AUG 19...	350	7.0	11	190	420	440	.7	15	1530	1530	.86

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)	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 DIS- SUS- PENDE D (MG/L AS C) (00689)
OCT 16...	.13	.190	.060	.91	1.3	.280	--	--	11	--	--
NOV 14...	1.1	3.700	3.900	.40	5.3	1.900	100	40	--	20	1.3
DEC 14...	.73	.960	2.200	2.9	4.8	.850	--	--	18	--	--
JAN 15...	.64	1.700	1.600	2.1	4.5	1.200	--	--	13	--	--
FEB 14...	.28	.260	.300	.94	2.0	.450	30	400	--	11	4.1
MAR 18...	.04	.270	.150	1.2	1.5	.290	--	--	16	--	--
APR 15...	.03	.130	.100	1.3	1.4	.100	--	--	12	--	--
JUN 10...	.01	.000	.010	1.8	1.8	.200	40	130	--	16	4.8
AUG 19...	.94	.150	.100	2.5	3.5	1.300	--	--	24	--	--

[illegible][illegible]

RIO GRANDE BASIN
08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX
(National stream-quality accounting network)

299

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 2N) (01092)	ZINC, DIS- SOLVED (UG/L AS 2N) (01090)
NOV 14...	.1	13	0	1	0	0	0	40	10
DEC 14...	--	--	--	--	--	0	--	--	--
FEB 14...	.2	3	1	0	0	0	0	30	60
MAR 18...	--	--	--	--	--	2	--	--	--
JUN 10...	.0	5	3	0	0	0	0	80	10
AUG 19...	--	--	--	--	--	1	--	--	--

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39368)
NOV 14...	1400	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 14...	1430	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39373)	DI- AZINON, TOTAL (UG/L) (39570)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39571)	DI- ELDRIN, TOTAL (UG/L) (39380)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39399)	HEPTA- CHLOR, TOTAL (UG/L) (39410)
NOV 14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 14...	ND	--	ND	--	ND	--	ND	--	ND	--	ND

DATE	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	HEPTA- CHLOR, TOTAL EPOXIDE BOTOM MATL. (UG/L) (39420)	HEPTA- CHLOR EPOXIDE BOTOM 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)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39531)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	METH- OXY- CHLOR, TOTAL BOTOM MATL. (UG/KG) (39481)	METHYL PARA- THION, TOTAL (UG/L) (39600)	METHYL PARA- THION, TOTAL BOTOM MATL. (UG/KG) (39601)
NOV 14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 14...	--	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	METHYL TRI- THION, TOTAL (UG/L) (39790)	METHYL TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39791)	PARA- THION, TOTAL (UG/L) (39540)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39541)	TOX- APHENE, TOTAL (UG/L) (39400)	TOX- APHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)	TRI- THION, TOTAL (UG/L) (39786)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39787)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)
NOV 14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 14...	ND	--	ND	--	ND	--	ND	--	--	--

ND Material specifically tested for but not detected.

RIO GRANDE BASIN

08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX
(National stream-quality accounting network)

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT				
16...	1100	1400	100	83
NOV				
14...	1400	--	120	250
DEC				
14...	1300	530	270	1000
JAN				
15...	1330	--	28	47
FEB				
14...	1430	230	33	230
MAR				
18...	1300	--	1400	1900
APR				
15...	1200	1100	29	300
JUN				
10...	1400	1100	140	320
AUG				
19...	1430	17000	6000	3400

RIO GRANDE BASIN
08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX
(National stream-quality accounting network)

301

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 14,79		MAR 18,80		JUN 10,80		AUG 19,80	
TIME	1400		1300		1400		1430	
TOTAL CELLS/ML	56000		32000		38000		30000	
DIVERSITY: DIVISION	1.0		0.4		1.6		1.5	
..CLASS	1.0		0.4		1.6		1.5	
..ORDER	1.6		1.3		2.4		1.8	
...FAMILY	1.9		2.1		2.9		2.6	
....GENUS	2.2		0.0		3.1		3.4	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
....CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	240	1
....MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	880	2	--	-
....MICRACTINIUM	3200	6	--	-	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	720	1	--	-	1300	3	590	2
....CHLORELLA	--	-	--	-	880	2	--	-
....CHODATELLA	--	-	--	-	220	1	--	-
....DICTYOSPHAERIUM	22000#	40	--	-	--	-	2800	9
....FRANCEIA	--	-	--	-	--	-	240	1
....KIRCHNERIELLA	--	-	--	-	--	-	470	2
...OOCYSTIS	1100	2	300	1	--	-	1300	4
....SELENASTRUM	--	-	--	-	220	1	--	-
....TREUBARIA	--	-	--	-	--	-	*	0
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	1300	3	2800	9
....SCENEDESMUS	--	-	--	-	1800	5	7100#	24
....TETRASTRUM	--	-	--	-	--	-	470	2
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CARTERIA	--	-	--	-	--	-	240	1
....CHLAMYDOMONAS	720	1	900	3	880	2	470	2
CHRYSPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
....COSCINODISCAEAE	--	-	900	3	--	-	--	-
....CYCLOTELLA	16000#	28	7200#	23	5500	14	4700#	16
....MELOSIRA	1800	3	300	1	--	-	240	1
..PENNALES								
....ACHNANTHACEAE								
....ACHNANTHES	--	-	15000#	48	--	-	--	-
....COCCONEIS	--	-	--	-	880	2	--	-
...FRAGILARIACEAE								
....SYNEDRA	--	-	300	1	--	-	--	-
...NAVICULACEAE								
....NAVICULA	720	1	900	3	880	2	470	2
...NITZSCHIAEAE								
....NITZSCHIA	9300#	17	4500	14	11000#	28	1100	4
...SURIPELLACEAE								
....SURIPELLA	--	-	300	1	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
..CRYPTOPHYCEAE								
...CRYPTOMONADALES								
....CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	220	1	--	-
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	440	1	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROCOCCALES								
....CHROCOCCACEAE								
....ANACYSTIS	--	-	--	-	8800#	23	--	-
....COCCOCHLORIS	--	-	--	-	220	1	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENOPSIS	--	-	--	-	--	-	5000#	17
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	3300	9	830	3
EUGLENOPHYTA (EUGLENOIDS)								
..EUGLENOPHYCEAE								
...EUGLENALES								
....EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	470	2
....TRACHELOMONAS	--	-	900	3	--	-	240	1

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

RIO GRANDE BASIN

08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX
(National stream-quality accounting network)

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
PERIPHYTON

DATE	TIME	LENGTH OF EXPO- SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT (00022) (00573)	PERI- PHYTON BIOMASS ASH WEIGHT (00572)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (70957)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (70958)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)	SAMPLING METHOD
NOV 14...	1400	29	9.13	8.50	9.14	1.57	68.9	Polyethylene strip
FEB 14...	1430	30	8.11	7.17	20.9	2.59	45.0	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (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...	1100	E16	15.5	137	--	62
NOV 14...	1400	70	10.5	161	30	55
DEC 14...	1300	51	5.5	223	31	27
JAN 15...	1330	E14	8.5	53	--	64
FEB 14...	1430	E20	9.0	56	--	20
MAR 18...	1300	12	12.0	378	12	89
APR 15...	1200	E9.0	22.0	97	--	36
JUN 10...	1400	10	34.0	204	5.5	79
AUG 19...	1430	269	27.0	1160	843	73

SPECIFIC CONDUCTANCE (MICRONHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3810	6440	5310	4980	7630	8080	10000	8310	8380	8940	9530	---
2	4270	6450	5820	5000	6620	8080	10000	9100	8390	10600	9360	6930
3	4900	5400	5820	5190	6670	8110	10100	9260	8170	10600	9810	5550
4	4880	5130	5820	6090	6390	8220	9800	7470	7550	8630	9620	5550
5	5420	4690	4930	6090	6880	8230	9800	7830	8530	8560	9710	709
6	6020	4590	5070	6990	6880	8130	9900	9080	8170	8560	9710	4950
7	5910	4170	4430	6090	7680	6790	9900	9960	8450	8780	9440	1000
8	4880	4010	4640	6160	7070	8160	9430	7340	7850	8860	8350	1820
9	5150	3870	4620	7030	7160	8340	9350	6780	8450	7590	5560	1810
10	4870	4190	5260	6260	6710	8720	9620	5920	8680	8940	5560	2100
11	5090	4310	5290	5480	6200	6900	9710	6020	8760	9180	8060	2120
12	5210	4640	5480	6990	6240	7700	9520	6390	8830	9020	1160	2770
13	5870	3980	5560	6230	6540	8340	9520	6650	8990	9020	2390	3230
14	5830	3910	4090	6450	7020	8250	9510	7040	9070	9020	1110	3230
15	5830	3950	5220	5990	7520	8400	9700	7710	9330	9100	6920	3230
16	6160	4400	5420	6120	6710	8380	9250	8240	9020	7710	2210	2540
17	6920	4350	5020	6260	7570	8650	7870	8200	8990	8860	1090	3110
18	6890	4370	4050	6260	7570	8500	7290	8540	9070	8940	2170	3220
19	6880	4270	4100	6300	8150	9460	7240	6340	8990	8280	2680	3830
20	6850	4420	4070	6490	8430	9460	8260	6300	9000	8280	3150	4930
21	6800	4520	4180	6860	8410	9530	6430	6280	8110	3090	3190	4840
22	7150	4520	3960	6990	8350	9890	6970	5630	9070	3140	3250	5140
23	7410	4340	4410	7410	8280	9890	6940	5470	8920	8150	5620	5120
24	7540	4670	4580	7570	8220	9660	9520	5530	8920	8150	5770	4980
25	7450	4670	5140	7620	8280	9870	7140	6180	9080	8210	3090	1180
26	7480	4490	5140	7730	8410	9920	8550	6160	8180	8710	3090	1140
27	6950	4840	6060	7080	8220	10000	8550	5830	8180	8710	2110	1280
28	7200	4180	5270	7840	7460	10200	8550	5140	9080	8940	5320	2070
29	7170	4790	5270	7030	7460	10200	8550	7020	9070	9440	2770	2840
30	6360	4760	5240	7570	---	10200	8470	7830	8920	9440	5260	2840
31	7130	---	5170	7570	---	10200	---	---	---	9440	5400	---
MEAN	6140	4580	4980	6570	7400	8850	8850	7120	8670	8480	5240	3240
WTR YR 1980	MEAN	6690	MAX	10600	MIN	709						

08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX
(National stream-quality accounting network)

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

TEMPERATURE, WIND (KTS), MAX WIND, OCTOBER 1979 TO SEPTEMBER 1980												
DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	15.0	8.0	7.5	10.0	19.5	22.0	22.5	26.5	35.0	31.5	---
2	22.0	15.0	9.0	8.0	7.5	14.0	20.0	23.0	29.5	35.5	25.5	25.5
3	22.5	14.5	11.5	11.0	7.5	13.5	19.5	23.5	28.0	34.0	34.5	26.5
4	22.5	14.5	8.0	8.0	14.0	12.5	21.5	27.0	28.0	32.0	32.5	26.5
5	22.5	18.0	9.0	8.0	14.0	17.5	21.5	24.5	27.0	32.0	32.5	23.0
6	26.0	13.5	8.5	5.0	14.5	8.5	20.5	27.0	27.5	27.0	33.5	24.5
7	26.0	9.0	9.5	9.0	3.5	14.5	20.0	26.5	25.5	32.5	32.5	23.0
8	26.0	13.5	9.5	9.5	7.5	15.0	21.0	21.5	29.0	32.5	33.0	26.5
9	19.5	15.0	9.0	7.5	7.0	14.0	24.5	24.5	27.5	30.0	28.5	26.0
10	23.5	14.5	10.0	11.0	8.0	14.5	24.5	21.5	31.0	28.0	29.5	25.5
11	21.0	14.5	10.0	7.0	7.5	12.0	21.5	18.0	29.0	29.5	22.5	25.5
12	23.0	14.0	8.5	10.0	8.0	15.5	20.0	25.0	29.0	33.5	22.0	27.5
13	21.0	11.0	9.5	11.0	14.0	14.0	19.5	26.0	30.0	33.0	23.5	27.5
14	22.5	11.0	7.0	8.5	8.0	20.0	19.5	29.0	29.5	29.5	23.5	27.5
15	20.5	12.5	9.0	6.5	7.5	20.0	20.0	25.0	34.5	31.5	31.5	27.5
16	22.5	12.5	10.5	11.0	10.0	17.5	22.0	25.0	34.0	30.0	33.0	26.5
17	19.5	14.5	6.5	10.5	14.0	17.0	22.5	25.0	30.0	32.5	32.0	27.0
18	19.5	16.0	7.0	10.0	14.0	12.5	21.5	22.5	28.5	31.0	25.0	25.5
19	22.0	14.5	9.0	15.0	13.5	13.0	25.0	27.5	28.5	30.0	25.5	27.5
20	19.0	9.5	9.5	7.5	17.0	16.5	23.0	27.0	32.0	29.5	27.0	27.5
21	18.0	5.5	11.5	7.5	18.0	11.0	21.5	25.0	32.0	25.5	26.5	26.5
22	19.5	5.0	12.0	7.5	16.0	18.0	24.0	30.0	32.5	25.5	27.0	25.5
23	11.0	8.5	10.0	9.5	15.0	16.5	23.0	17.0	31.5	28.5	28.0	24.5
24	20.5	8.5	5.5	9.5	14.0	15.0	20.0	28.0	31.0	33.5	30.5	25.5
25	18.5	11.5	8.5	6.0	15.0	16.5	22.5	27.0	32.0	32.0	26.0	18.5
26	17.0	11.0	8.0	7.0	18.0	20.5	21.5	29.5	33.5	29.5	26.0	19.5
27	22.0	10.5	7.5	10.0	14.5	21.5	21.5	27.0	29.5	28.0	34.5	19.0
28	16.5	9.0	8.5	9.5	9.0	18.5	25.5	25.5	30.0	29.5	30.0	20.0
29	17.0	7.0	8.5	10.5	8.5	11.5	25.5	30.0	28.5	32.0	25.5	22.0
30	22.0	9.5	5.5	11.5	---	16.0	25.0	24.0	28.5	27.5	25.5	25.0
31	14.5	---	8.5	11.5	---	17.0	---	27.0	---	32.0	25.5	---
MEAN	20.5	12.0	9.0	9.0	11.5	15.5	22.0	25.0	30.0	30.5	28.5	25.0
WTR YR 1980		MEAN	20.0	MAX	35.5	MIN	3.5					

RIO GRANDE BASIN

08377900 RIO MORA NEAR TERRERO, NM
(Hydrologic bench-mark station)

LOCATION.--Lat 35°46'38", long 105°39'27", in E4NE4 sec.22, T.18 N., R.12 E., San Miguel County, Hydrologic 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 mi² (137.8 km²).

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.--17 years, 29.0 ft³/s (0.821 m³/s), 21,010 acre-ft/yr (25.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 820 ft³/s (23.2 m³/s) June 8, 1979, gage height, 4.15 ft (1.265 m); minimum determined, 0.90 ft³/s (0.025 m³/s) Jan. 12-14, 1964, but may have been less during periods of ice effect.

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.--Peak discharges above base of 100 ft³/s (2.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 10	2330	108 3.06	2.09 0.637	June 9	2100	*280 7.93	2.79 0.850

Minimum discharge, 2.8 ft³/s (0.079 m³/s) Nov. 11, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	6.2	4.5	4.0	4.4	7.0	6.5	45	219	25	11	5.3
2	8.3	5.1	4.8	4.2	4.4	7.0	6.8	41	215	24	9.0	5.1
3	8.1	6.0	5.0	4.2	4.4	7.3	6.6	41	211	23	9.0	4.9
4	8.0	7.3	5.0	4.2	4.7	7.0	7.7	44	219	22	7.8	4.9
5	7.8	5.6	5.0	4.2	4.7	6.8	9.3	49	227	20	7.0	7.2
6	7.7	5.4	4.5	4.2	4.7	6.9	12	59	225	19	8.1	10
7	7.3	7.0	4.2	4.2	4.7	6.8	13	68	215	23	12	13
8	7.0	6.8	4.5	4.2	4.7	6.7	12	81	224	25	15	9.6
9	7.0	6.6	4.8	4.2	4.7	6.6	14	81	252	19	50	14
10	7.0	5.8	5.0	4.2	4.6	6.5	17	90	247	18	19	45
11	6.8	4.2	4.5	4.2	4.6	6.5	19	98	228	16	15	29
12	6.6	5.0	4.0	4.2	4.6	6.4	15	86	209	15	13	22
13	6.6	5.0	4.0	4.3	4.6	6.2	15	78	181	15	12	19
14	6.4	6.0	4.0	4.4	4.7	6.5	13	76	157	14	12	17
15	6.4	6.0	3.7	4.4	5.0	7.5	14	74	138	13	14	16
16	6.2	6.5	3.7	4.3	4.8	8.1	20	69	120	12	11	15
17	6.2	7.0	3.7	4.2	4.8	7.5	26	69	108	12	9.2	14
18	6.2	7.5	3.8	4.1	5.5	7.5	32	76	98	11	8.7	13
19	6.2	6.5	3.8	4.2	6.2	7.6	39	85	88	11	8.1	13
20	6.1	6.0	4.0	4.2	6.4	7.6	42	107	78	11	7.6	12
21	6.8	5.0	4.0	4.2	5.8	8.0	44	130	69	11	7.3	11
22	6.8	4.0	3.9	4.2	6.0	9.0	45	152	61	13	7.0	11
23	6.9	4.5	3.8	4.1	6.0	8.4	50	180	55	12	6.8	11
24	7.1	4.5	4.0	4.1	6.0	7.7	43	210	49	12	6.6	11
25	6.6	5.0	4.5	4.1	5.8	7.6	37	205	45	9.7	7.9	9.9
26	6.0	6.0	4.5	4.1	5.8	7.2	30	185	41	9.2	7.1	10
27	5.7	5.0	4.3	4.2	6.2	7.2	29	176	37	8.4	6.8	10
28	5.5	4.0	4.0	4.1	7.0	7.0	37	176	34	8.4	6.3	11
29	5.6	4.0	4.0	4.2	7.0	6.9	54	199	32	8.4	5.8	10
30	6.0	4.2	4.0	4.2	---	6.7	53	204	29	9.2	5.5	9.2
31	5.6	---	4.0	4.3	---	6.7	---	214	---	9.2	5.4	---
TOTAL	209.0	167.7	131.5	130.1	152.8	222.4	761.9	3448	4111	458.5	331.0	393.1
MEAN	6.74	5.59	4.24	4.20	5.27	7.17	25.4	111	137	14.8	10.7	13.1
MAX	8.5	7.5	5.0	4.4	7.0	9.0	54	214	252	25	50	45
MIN	5.5	4.0	3.7	4.0	4.4	6.2	6.5	41	29	8.4	5.4	4.9
AC-FT	415	333	261	258	303	441	1510	6840	8150	909	657	780

CAL YR 1979 TOTAL 21910.3 MEAN 60.0 MAX 597 MIN 3.7 AC-FT 43460
WTR YR 1980 TOTAL 10517.0 MEAN 28.7 MAX 252 MIN 3.7 AC-FT 20860

RIO GRANDE BASIN
08377900 RIO MORA NEAR TERRERO, NM -- Continued
WATER-QUALITY RECORDS

305

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
NOV 08...	1222	6.6	125	8.0	3.5	2.5	10.0	54	13	18
FEB 01...	1020	4.4	127	8.4	6.5	.5	11.0	65	14	22
MAR 27...	1100	6.9	107	8.0	10.0	2.0	11.0	56	12	19
MAY 08...	0900	80	92	8.0	10.0	3.0	10.5	38	9	13
JUL 10...	0930	23	88	8.2	22.0	11.5	8.8	42	6	14
SEP 11...	0945	30	120	8.2	15.5	10.0	8.9	44	11	15

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 (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)
NOV 08...	2.2	1.8	.1	.5	41	12	.7	--	5.9
FEB 01...	2.4	1.7	.1	.6	51	12	.8	.2	6.4
MAR 27...	2.0	1.6	.1	.6	44	11	.6	.2	5.9
MAY 08...	1.3	1.3	.1	1.8	29	8.8	.4	.2	7.0
JUL 10...	1.7	1.0	.1	.6	36	6.6	.9	.2	6.1
SEP 11...	1.6	1.2	.1	.7	33	7.6	.8	.2	6.4

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 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHOPH- OSPHATE DISSOL. (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CYANIDE TOTAL (MG/L AS CN) (00720)
NOV 08...	65	66	.12	.12	.000	.010	--	--	--
FEB 01...	83	77	.11	.11	.000	.010	--	--	--
MAR 27...	64	69	.00	.03	.010	.000	<10	<1	.00
MAY 08...	61	51	.03	.04	--	.030	--	--	--
JUL 10...	64	53	.02	.00	.020	.000	--	--	--
SEP 11...	52	53	.00	.00	.020	.000	29	2	.00

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 27...	1100	0	0	200	20	<1	0	<1	20	0	<3
SEP 11...	0945	1	1	0	30	<1	0	<1	0	0	<3

RIO GRANDE BASIN
08377900 RIO MORA NEAR TERRERO, NM -- Continued
WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 27...	0	<10	20	<10	0	<10	<4	10	<1	.1
SEP 11...	5	<10	120	29	2	<10	<4	10	2	.1

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 27...	.0	<10	0	0	0	0	42	<6.0	20	<3
SEP 11...	.0	<10	0	0	0	0	38	<6.0	20	9

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS BETA, 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 YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90) (80060)	RADIUM DIS- SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L) (80020)
SEP 11...	0945	<.8	<.4	.7	<.4	.7	<.4	.05	.15

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	PCB TOTAL (UG/L) (39516)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/L) (39330)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/L) (39350)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/L) (39360)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)
SEP 11...	0945	.00	0	.00	.0	.0	0	.00	.4	.00

DATE	TIME	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39368)	DDT, TOTAL IN BOT- TOM MA- TERIAL (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)
SEP 11...	.8	.00	1.0	.00	.00	.0	.00	.00	.00	.0	.00

DATE	TIME	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (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 BOT. MA- TERIAL (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 BOT. MA- TERIAL (UG/KG) (39481)	METHYL PARA- THION, TOTAL (UG/L) (39600)
SEP 11...	.00	.0	.00	.0	.00	.00	.0	.00	.00	3.0	.00

DATE	TIME	METHYL TRI- THION, TOTAL (UG/L) (39790)	PARA- THION, TOTAL (UG/L) (39540)	TOX- APHENE, TOTAL (UG/L) (39400)	TOX- APHENE, 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)
SEP 11...	.00	.00	.00	0	0	.00	.00	.00	.00	.0	.00

08377900 RIO MORA NEAR TERRERO, NM -- Continued

WATER-QUALITY RECORDS

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
NOV 08...	1222	43	4	100
FEB 01...	1020	27	1	1
MAR 27...	1100	0	0	0
MAY 08...	0900	75	48	6
JUL 10...	0930	36	15	40
SEP 11...	0945	33	6	88

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 25...	1400	6.6	9.0	1	.02
NOV 08...	1222	6.6	2.5	1	.02
NOV 26...	1215	6.7	.5	3	.05
FEB 01...	1020	4.4	.5	3	.04
FEB 25...	1300	6.7	.5	1	.02
MAR 12...	1240	6.3	5.0	0	.00
MAR 27...	1100	6.9	2.0	0	.00
APR 10...	1151	20	4.0	3	.16
MAY 08...	0900	80	3.0	7	1.5
JUL 10...	0930	23	11.5	0	.00
AUG 25...	1400	9.1	15.0	1	.02
SEP 11...	0945	30	10.0	8	.65
SEP 24...	1200	11	10.0	1	.03

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 mi² (490 km²).

PERIOD OF RECORD.--August 1919 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as "near Cowles" 1919-25, "at Irwins Ranch" 1926-29, and as "at Irwins 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 hm²), 1959 determination, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--61 years, 97.6 ft³/s (2.764 m³/s), 70,710 acre-ft/yr (87.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 4,500 ft³/s (130 m³/s) Sept. 21 or 22, 1929, gage height, 6.2 ft (1.89 m), from floodmark, from rating curve extended above 1,600 ft³/s (45 m³/s); minimum, 2.0 ft³/s (0.057 m³/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.--Peak discharges above base of 310 ft³/s (8.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 11	0015	387 11.0	2.93 0.893	June 9	2030	*792 22.4	3.56 1.085

Minimum discharge, 7.8 ft³/s (0.22 m³/s) Feb. 10, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	34	28	22	26	32	29	150	533	166	60	31
2	37	30	30	23	26	32	33	135	525	157	57	30
3	35	29	32	22	26	34	33	138	519	148	54	29
4	35	36	34	20	27	32	33	150	539	139	51	29
5	34	31	35	21	27	31	38	178	566	131	49	33
6	34	29	34	23	26	30	45	215	570	124	55	45
7	33	35	32	22	27	30	50	237	558	137	64	55
8	32	37	33	22	25	30	49	288	582	145	66	42
9	32	35	35	23	22	30	54	286	673	126	150	56
10	32	34	38	23	25	30	65	313	705	114	76	140
11	32	25	35	23	26	30	74	345	692	103	69	92
12	31	27	30	22	28	29	59	295	669	96	60	68
13	31	27	33	22	30	28	53	268	626	93	56	58
14	31	32	30	23	34	29	49	260	581	91	57	53
15	31	32	30	23	31	33	53	255	540	85	69	51
16	31	32	30	23	29	33	72	232	486	80	56	48
17	31	32	30	23	26	31	93	231	459	77	50	45
18	30	34	30	23	28	30	111	258	443	74	48	42
19	30	33	30	23	32	32	136	291	416	73	46	41
20	30	33	32	23	32	30	152	363	379	71	42	39
21	33	30	32	23	29	32	161	423	352	79	40	38
22	34	28	30	23	30	35	167	457	321	79	40	37
23	36	26	28	22	28	35	171	503	295	72	39	37
24	38	25	29	23	28	31	157	553	274	78	39	36
25	38	30	32	23	28	31	129	534	254	69	44	35
26	35	32	35	24	32	29	108	480	233	62	40	36
27	33	32	32	23	33	31	104	457	218	59	39	37
28	32	30	30	23	34	31	122	457	203	56	37	38
29	32	26	25	24	34	31	165	497	190	56	35	38
30	33	27	22	25	---	30	167	503	178	62	33	34
31	32	---	22	26	---	30	---	522	---	63	33	---
TOTAL	1026	923	958	708	829	962	2732	10274	13579	2965	1654	1393
MEAN	33.1	30.8	30.9	22.8	28.6	31.0	91.1	331	453	95.6	53.4	46.4
MAX	38	37	38	26	34	35	171	553	705	166	150	140
MIN	30	25	22	20	22	28	29	135	178	56	33	29
AC-FT	2040	1830	1900	1400	1640	1910	5420	20380	26930	5880	3280	2760
CAL YR 1979	TOTAL	75390	MEAN 207	MAX 1730	MIN 18	AC-FT 149500						
WTR YR 1980	TOTAL	38003	MEAN 104	MAX 705	MIN 20	AC-FT 75380						

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 mi² (2,720 km²), 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 (1,564 m) from river-profile map. See WSP 1312 for history of changes prior to June 21, 1951.

REMARKS.--Water-discharge records poor. Diversions above station for irrigation of about 4,900 acres (2.0 km²), 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.--67 years (1910-15, 1916-24, 1926-80), 129 ft³/s (3.653 m³/s), 93,460 acre-ft/yr (115 hm³/yr). EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,300 ft³/s (1,140 m³/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 ft³/s (2,100 m³/s), from information by a local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,900 ft³/s (167 m³/s) at 2030 hours Aug. 27, gage height, 9.07 ft (2.765 m), no other peak above base of 3,000 ft³/s (85 m³/s); minimum 0.08 ft³/s (0.002 m³/s) Nov. 16.

Discharge measurements, in cubic feet per second, of Acequia del Bodo Juan Paiz, Water Year 1980

Jan. 7 7.6
Feb. 6 19
May 28 28
Sept. 10 48

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	8.5	7.7	11	6.1	6.9	44	201	487	86	8.4	50
2	13	8.0	7.9	9.9	5.5	7.9	48	202	490	66	7.9	49
3	9.8	7.6	7.6	9.9	3.8	14	48	181	470	51	9.8	49
4	12	7.2	10	9.9	3.0	11	53	226	453	39	7.7	49
5	15	3.8	11	9.9	5.7	6.3	51	298	479	28	7.4	50
6	15	4.4	11	9.4	5.9	7.8	52	399	502	29	7.5	49
7	15	4.4	11	10	6.0	8.1	59	389	496	28	6.5	49
8	11	3.5	10	12	6.0	9.6	70	396	500	27	7.5	49
9	9.3	4.2	11	11	5.2	7.8	80	441	535	32	8.8	63
10	10	4.7	11	11	5.7	8.2	84	410	628	27	61	375
11	16	2.2	11	9.2	3.5	14	88	417	638	22	69	118
12	20	1.9	11	9.3	4.2	15	107	445	622	16	56	70
13	19	4.3	11	8.6	5.2	19	104	375	594	15	50	35
14	18	3.0	11	8.8	4.6	20	94	340	556	15	62	25
15	17	.29	10	8.8	3.7	19	90	422	510	13	126	15
16	16	.10	9.9	8.1	4.3	19	89	474	470	12	91	12
17	13	.14	9.9	7.1	6.2	21	94	375	405	11	68	9.0
18	15	.15	11	7.7	6.3	24	119	337	371	11	56	8.0
19	15	3.7	11	7.0	5.8	25	139	350	344	10	45	7.0
20	15	5.2	11	7.1	5.0	26	161	372	314	10	43	6.0
21	14	5.5	11	7.6	5.2	29	183	436	290	9.5	49	5.0
22	14	5.7	12	7.6	3.5	29	214	497	262	8.9	48	4.5
23	14	4.8	12	6.2	.85	35	222	569	239	8.7	42	4.0
24	13	4.8	12	5.7	4.3	42	245	611	200	8.0	43	3.6
25	13	4.7	12	4.6	6.2	41	252	631	178	8.2	45	3.2
26	13	5.9	11	4.3	8.9	39	202	562	158	9.8	45	2.8
27	12	7.0	12	7.1	8.6	42	166	500	131	9.4	468	2.5
28	9.8	2.4	11	6.6	8.4	42	156	459	130	7.0	289	2.3
29	9.6	3.1	11	6.2	7.2	49	131	452	115	7.0	52	2.1
30	8.9	7.6	11	4.9	---	48	179	478	103	6.9	51	2.0
31	8.6	---	11	6.0	---	45	---	481	---	9.0	50	---
TOTAL	419.0	128.78	331.0	252.5	154.85	730.6	3624	12726	11670	640.4	1980.5	1169.0
MEAN	13.5	4.29	10.7	8.15	5.34	23.6	121	411	389	20.7	63.9	39.0
MAX	20	8.5	12	12	8.9	49	252	631	638	86	468	375
MIN	8.6	.10	7.6	4.3	.85	6.3	44	181	103	6.9	6.5	2.0
AC-FT	831	255	657	501	307	1450	7190	25240	23150	1270	3930	2320

CAL YR 1979 TOTAL 88025.78 MEAN 241 MAX 2270 MIN .10 AC-FT 174600
WTR YR 1980 TOTAL 33826.63 MEAN 92.4 MAX 638 MIN .10 AC-FT 67100

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 mi² (220 km²), approximately.
 PERIOD OF RECORD.--March to September 1915, June 1916 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1964, published as Gallinas River near Montezuma.
 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 good except those for winter period, which are poor. Diversions for irrigation of about 80 acres (32 hm²), 1959 determination, above station. Several observations of water temperature were made during the year.
 AVERAGE DISCHARGE.--64 years, 19.3 ft³/s (0.547 m³/s), 13,980 acre-ft/yr (17.2 hm³/yr).
 EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,120 ft³/s (202 m³/s) Aug. 2, 1966, gage height, 9.7 ft (2.96 m), from floodmarks, from rating curve extended above 500 ft³/s (14 m³/s) on basis of slope-area measurements at gage heights 5.25 ft (1.600 m), 8.25 ft (2.515 m), and 9.7 ft (2.96 m); minimum, 0.20 ft³/s (0.006 m³/s), Oct. 6-9, 1922, Sept. 21, Oct. 9-14, 1956, Dec. 13, 1964.
 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.--Maximum discharge, 635 ft³/s (18.0 m³/s) at 2345 hours July 16, gage height, 3.73 ft (1.137 m), no other peak above base of 200 ft³/s (5.7 m³/s); minimum, 1.2 ft³/s (0.034 m³/s) Dec. 24, 29, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	4.2	4.5	4.5	4.3	5.0	5.5	43	50	5.2	4.2	3.0
2	4.9	4.3	5.0	5.0	4.2	4.6	7.8	38	48	4.7	3.8	2.8
3	4.8	4.0	5.5	4.5	4.2	4.8	6.8	40	44	4.5	4.2	2.5
4	5.2	4.4	5.5	4.5	4.3	4.8	7.5	48	42	4.4	3.8	2.6
5	5.1	4.3	5.5	4.5	4.2	4.6	9.1	55	42	4.2	3.6	3.0
6	4.8	4.3	5.3	4.5	4.1	4.5	11	63	41	4.3	3.3	3.9
7	4.8	4.1	5.4	4.5	4.0	4.5	13	62	40	3.8	5.0	3.9
8	4.9	4.2	5.3	4.5	4.0	4.1	12	68	40	4.0	5.5	4.1
9	4.8	4.2	5.3	4.5	4.0	4.3	12	64	41	4.0	4.3	5.8
10	4.8	4.1	5.4	4.5	4.0	4.2	13	62	41	3.7	22	83
11	4.9	4.2	5.3	4.4	4.0	4.5	16	63	39	3.5	15	37
12	4.8	3.9	5.3	4.5	4.0	4.4	12	55	35	3.2	11	20
13	4.7	4.1	5.6	4.8	4.5	4.0	12	50	31	3.2	9.0	14
14	4.7	4.3	5.5	4.6	4.5	4.5	12	49	28	3.2	8.1	12
15	4.7	4.5	5.5	4.9	4.9	4.5	15	72	24	3.3	9.0	10
16	4.7	4.5	5.0	4.6	4.9	4.6	18	80	21	16	7.1	8.7
17	4.7	4.7	5.0	4.2	4.6	4.3	20	70	19	18	5.6	7.4
18	4.6	5.3	5.0	4.5	4.6	4.2	21	69	16	3.8	5.2	6.1
19	4.7	5.3	5.0	4.7	5.5	4.4	23	64	15	3.4	4.8	5.4
20	4.6	5.0	5.0	4.7	5.3	4.2	26	65	13	3.4	4.3	5.0
21	4.7	4.5	5.0	4.3	4.8	4.2	28	66	12	3.4	4.1	4.8
22	5.4	4.0	4.5	4.6	4.9	4.5	30	71	11	3.7	3.7	4.6
23	4.6	4.5	4.0	4.5	4.4	5.0	32	90	9.5	4.5	3.4	4.6
24	4.3	5.0	4.5	5.0	4.4	4.8	32	90	9.5	3.6	3.5	4.6
25	3.3	5.5	5.0	4.5	4.4	5.2	27	81	8.3	3.2	4.1	4.6
26	3.3	5.8	5.1	4.5	4.7	4.7	23	68	7.6	3.1	4.1	4.6
27	3.3	5.5	5.0	4.3	4.7	5.1	25	60	6.7	3.2	14	5.0
28	3.4	4.5	4.5	4.1	5.0	5.0	38	56	6.0	3.2	5.6	5.0
29	3.5	4.0	4.5	4.0	5.1	5.0	50	56	5.9	5.5	4.3	5.2
30	3.7	4.5	4.5	4.5	---	5.0	49	54	6.2	3.9	3.5	4.8
31	4.0	---	4.5	4.5	---	5.5	---	52	---	3.8	3.2	---
TOTAL	139.9	135.7	156.0	140.2	130.5	143.0	606.7	1924	752.7	144.9	231.0	288.0
MEAN	4.51	4.52	5.03	4.52	4.50	4.61	20.2	62.1	25.1	4.67	7.45	9.60
MAX	5.4	5.8	5.6	5.0	5.5	5.5	50	90	50	18	43	83
MIN	3.3	3.9	4.0	4.0	4.0	4.0	5.5	38	5.9	3.1	3.2	2.5
AC-FT	277	269	309	278	259	284	1200	3820	1490	287	458	571

CAL YR 1979 TOTAL 13679.4 MEAN 37.5 MAX 556 MIN 3.3 AC-FT 27130
 WTR YR 1980 TOTAL 4792.6 MEAN 13.1 MAX 90 MIN 2.5 AC-FT 9510

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 mi² (1,580 km²), 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 good. Diversions for irrigation of about 7,000 acres (28 km²) 1959 determination, above station.

Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--29 years, 15.9 ft³/s (0.450 m³/s), 11,520 acre-ft/yr (14.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,360 ft³/s (265 m³/s) June 16, 1963, gage height, 16.65 ft (5.075 m), from rating curve extended above 1,900 ft³/s (53.8 m³/s) on basis of slope-area measurements at gage heights 8.64 ft (2.633 m), 12.74 ft (3.883 m), 16.65 ft (5.075 m), and 27.2 ft (8.291 m); no flow most of time.

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 ft³/s (756 m³/s) by slope-area measurement made in 1951. A flood of about the same magnitude occurred Sept. 29-30, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 191 ft³/s (5.41 m³/s) at 1430 hours Sept. 10, gage height, 4.28 ft (1.305 m) no peak above base of 1,700 ft³/s (48 m³/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	1.1	1.4	1.6	2.1	1.1	2.0	4.7	.00	.00	.00	.00
2	.00	1.1	1.3	1.6	2.0	1.2	2.2	6.8	.00	.00	.00	.00
3	.00	1.2	1.4	1.5	1.7	1.3	2.1	6.3	.00	.00	.00	.00
4	.00	1.2	1.7	1.5	1.6	1.5	1.9	10	.00	.00	.00	.00
5	.00	1.3	2.1	1.6	1.5	1.4	1.4	11	.00	.00	.00	.00
6	.00	1.3	2.1	1.4	1.4	1.3	1.1	9.5	.00	.00	.00	.00
7	.00	1.4	1.9	1.5	1.6	1.3	.83	8.4	.00	.00	.00	.00
8	.00	1.4	1.7	1.5	2.1	1.2	.55	11	.00	.00	.00	.00
9	.00	1.4	1.7	1.4	2.1	1.0	.46	9.5	.00	.00	.00	.00
10	.00	1.5	1.7	1.5	2.1	1.0	.38	6.5	.00	.00	.00	64
11	.00	1.5	1.5	1.7	2.1	1.1	.55	4.7	.00	.00	.00	49
12	.94	1.5	1.5	2.0	2.0	1.2	2.3	3.2	.73	.00	.00	28
13	2.0	1.6	1.2	2.0	1.9	1.2	1.7	2.9	2.9	.00	.00	12
14	1.4	1.6	1.1	2.0	1.9	1.0	1.6	2.7	.26	.00	31	7.6
15	.80	1.6	1.1	1.9	2.0	.75	1.9	3.5	.00	.00	11	4.5
16	.60	1.6	1.1	1.9	2.2	.61	2.0	4.0	.00	.00	2.1	3.3
17	.60	1.6	1.1	1.9	2.2	.50	1.3	7.0	.00	.00	.68	2.3
18	.60	1.6	1.1	1.9	2.3	.55	.91	11	.00	.00	.14	1.4
19	.80	1.5	1.2	1.9	2.2	.50	.68	7.8	.00	.00	.00	.68
20	.80	1.4	1.2	2.0	2.0	.46	.55	5.8	.00	.00	.00	.14
21	.90	1.3	1.4	2.1	2.0	.55	.26	4.1	.00	.00	.00	.02
22	.90	1.3	1.3	2.2	1.9	.50	.04	3.5	.00	.00	.00	.00
23	1.0	1.4	1.3	2.0	1.5	.68	.00	2.2	.00	.00	.00	.00
24	1.0	1.5	1.5	2.0	1.4	1.1	.00	1.7	.00	.00	.00	.00
25	1.1	1.6	1.7	2.0	1.4	1.2	.02	1.7	.00	.00	.00	.00
26	1.2	1.4	1.5	1.7	1.4	1.2	.75	1.1	.00	.00	.00	.00
27	1.2	1.3	2.1	1.9	1.5	1.2	5.9	.68	.00	.00	.00	.00
28	1.2	1.2	1.5	1.9	1.4	1.2	5.2	.26	.00	.00	.00	.00
29	1.1	1.3	2.3	2.0	1.3	1.6	3.7	.00	.00	.00	.00	.00
30	1.0	1.5	2.1	2.0	---	1.5	3.3	.00	.00	.00	.00	.00
31	1.0	---	1.6	2.0	---	1.5	---	.00	---	.00	.00	---
TOTAL	20.14	42.2	47.4	56.1	52.8	32.40	45.58	151.54	3.89	.00	44.92	172.94
MEAN	.65	1.41	1.53	1.81	1.82	1.05	1.52	4.89	.13	.000	1.45	5.76
MAX	2.0	1.6	2.3	2.2	2.3	1.6	5.9	11	2.9	.00	31	64
MIN	.00	1.1	1.1	1.4	1.3	.46	.00	.00	.00	.00	.00	.00
AC-FT	40	84	94	111	105	64	90	301	7.7	.00	89	343
CAL YR 1979	TOTAL	5088.88	MEAN	13.9	MAX	623	MIN	.00	AC-FT	10090		
WTR YR 1980	TOTAL	669.91	MEAN	1.83	MAX	64	MIN	.00	AC-FT	1330		

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 mi² (6,030 km²), 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 km²), 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,580 ft³/s (158 m³/s) Aug. 29, 1977, gage height 9.74 ft, from slope-area measurement of peak discharges; no flow many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,380 ft³/s (39.1 m³/s) at 0200 hours Aug. 28, gage height, 8.06 ft (2.457 m), no peak above base of 3,000 ft³/s (85 m³/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	.90	.18	.00	.00	.00	.00	104	336	3.1	1.8	2.3
2	1.5	.90	.18	.00	.00	.00	.00	107	329	3.8	1.6	2.3
3	1.5	.90	.18	.00	.00	.00	.00	102	336	3.8	1.4	2.3
4	1.5	.84	.18	.00	.00	.00	.00	92	336	4.1	1.4	2.3
5	1.5	.78	.18	.00	.00	.00	.00	124	373	3.8	1.4	2.3
6	1.5	.71	.14	.00	.00	.00	.00	246	366	3.8	1.4	2.3
7	1.4	.71	.14	.00	.00	.00	.00	266	329	3.8	1.6	2.3
8	1.4	.78	.14	.00	.00	.00	.00	279	316	3.5	1.2	2.4
9	1.4	.64	.09	.00	.00	.00	.00	316	310	3.1	1.2	3.1
10	1.5	.64	.04	.00	.00	.00	.00	279	412	3.5	.90	520
11	1.5	.61	.09	.00	.00	.00	.00	266	480	3.5	.84	295
12	1.5	.52	.04	.00	.00	.00	11	285	472	3.5	.84	90
13	1.4	.52	.04	.00	.00	.00	43	261	455	3.8	.84	40
14	1.4	.52	.00	.00	.00	.00	37	209	420	3.1	.97	25
15	1.4	.52	.00	.00	.00	.00	22	236	359	3.5	37	10
16	1.4	.52	.00	.00	.00	.00	13	323	272	4.1	18	6.0
17	1.3	.45	.00	.00	.00	.00	5.3	279	213	3.8	3.2	4.0
18	1.3	.40	.00	.00	.00	.00	11	234	173	4.1	1.2	3.3
19	1.3	.40	.00	.00	.00	.00	34	224	165	3.8	.90	1.0
20	1.3	.36	.00	.00	.00	.00	52	218	127	3.1	.90	.90
21	1.2	.36	.00	.00	.00	.00	70	255	113	3.1	1.1	.90
22	1.1	.36	.00	.00	.00	.00	86	336	83	3.1	.97	.80
23	1.1	.36	.00	.00	.00	.00	104	463	74	2.8	.84	.80
24	1.1	.32	.00	.00	.00	.00	116	437	34	2.4	.84	.80
25	1.1	.22	.00	.00	.00	.00	137	499	4.7	2.4	.97	.80
26	1.0	.18	.00	.00	.00	.00	124	455	3.5	2.3	1.0	.80
27	1.0	.22	.00	.00	.00	.00	88	351	3.5	2.2	.78	.60
28	1.0	.22	.00	.00	.00	.00	75	298	3.5	2.0	310	.50
29	1.0	.22	.00	.00	.00	.00	58	255	3.5	2.0	40	.50
30	.97	.22	.00	.00	---	.00	58	298	3.5	1.9	4.7	.50
31	.97	---	.00	.00	---	.00	---	329	---	1.6	3.5	---
TOTAL	40.04	15.30	1.62	.00	.00	.00	1144.30	8426	6905.2	98.4	443.29	1023.80
MEAN	1.29	.51	.052	.000	.000	.000	38.1	272	230	3.17	14.3	34.1
MAX	1.5	.90	.18	.00	.00	.00	137	499	480	4.1	310	520
MIN	.97	.18	.00	.00	.00	.00	.00	92	3.5	1.6	.78	.50
AC-FT	79	30	3.2	.00	.00	.00	2270	16710	13700	195	879	2030
CAL YR 1979 TOTAL	67957.74			MEAN 186	MAX 1770	MIN .00	AC-FT 134800					
WTR YR 1980 TOTAL	18097.95			MEAN 49.4	MAX 520	MIN .00	AC-FT 35900					

08382650 PECOS RIVER ABOVE SANTA ROSA LAKE, NM
(Formerly published as Pecos River above Los Esteros Reservoir, 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 mi² (6,060 km²), approximately.

PERIOD OF RECORD.--February 1976 to current year.

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 km²), 1959 determination. 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,130 ft³/s (259 m³/s) Aug. 29, 1977, gage height, 14.08 (4.292 m) from rating curve extended above 5,000 ft³/s (142 m³/s), on basis of slope-area measurement of peak flow; minimum 3.0 ft³/s (0.085 m³/s) Jan. 30, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 864 ft³/s (24.5 m³/s) Sept. 10, gage height, 6.21 ft (1.893 m), no peak above base of 3,000 ft³/s (85 m³/s); minimum, 10 ft³/s (0.283 m³/s) Apr. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	19	16	14	14	13	12	120	353	18	17	15
2	20	19	16	14	14	13	12	139	337	18	17	14
3	20	19	16	14	14	12	12	142	343	18	18	14
4	21	18	16	14	14	12	11	136	332	17	18	14
5	20	18	16	13	14	12	12	176	316	17	16	16
6	20	18	16	13	13	12	12	258	343	17	16	16
7	20	18	16	13	15	12	11	281	321	17	17	14
8	20	18	16	13	15	12	11	291	337	18	17	13
9	20	18	16	13	14	12	12	306	343	18	16	14
10	20	18	15	13	14	12	12	296	423	19	16	359
11	20	17	16	13	14	12	13	281	500	18	16	238
12	20	17	16	13	13	11	14	311	468	18	15	98
13	20	16	17	13	13	12	31	276	454	17	15	66
14	20	16	17	13	13	12	25	253	399	16	16	24
15	20	18	17	14	13	12	24	274	332	17	27	16
16	20	18	17	14	14	12	17	332	291	17	45	14
17	20	17	16	14	13	12	14	296	258	17	27	14
18	20	16	16	14	13	11	14	253	222	18	14	14
19	20	17	16	14	13	11	27	240	190	18	14	14
20	19	17	16	14	13	11	53	244	168	19	15	14
21	19	17	16	14	13	11	79	266	145	20	14	14
22	19	17	15	14	13	11	115	326	123	20	14	14
23	19	17	15	14	13	13	136	387	88	21	14	13
24	19	17	15	15	13	12	154	423	59	21	14	13
25	19	17	15	14	13	11	162	501	28	20	15	14
26	18	17	14	15	13	11	154	411	21	20	14	14
27	18	17	16	15	13	11	123	393	21	20	14	14
28	18	16	16	15	13	12	93	375	20	21	393	13
29	19	16	15	15	13	14	75	331	19	21	98	13
30	21	16	14	14	---	12	60	353	18	21	17	13
31	19	---	15	15	---	12	---	353	---	20	16	---
TOTAL	607	519	489	430	390	368	1500	9024	7272	577	995	1136
MEAN	19.6	17.3	15.8	13.9	13.4	11.9	50.0	291	242	18.6	32.1	37.9
MAX	21	19	17	15	15	14	162	501	500	21	393	359
MIN	18	16	14	13	13	11	11	120	18	16	14	13
AC-FT	1200	1030	970	853	774	730	2980	17900	14420	1140	1970	2250
CAL YR 1979	TOTAL	72059.1	MEAN	197	MAX	2020	MIN	5.0	AC-FT	142900		
WTR YR 1980	TOTAL	23307.0	MEAN	63.7	MAX	501	MIN	11	AC-FT	46230		

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 Los Esteros Reservoir damsite, and 10.2 mi (16.4 km) north-northeast of Santa Rosa.

DRAINAGE AREA.--13.7 mi² (22.0 km²).

PERIOD OF RECORD.--July 1973 to current year.

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.--7 years, 0.45 ft³/s (0.013 m³/s), 326 acre-ft/yr (402,000 m³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,400 ft³/s (210 m³/s) Aug. 29, 1977, gage height, 7.80 ft (2.377 m) from rating curve extended above 0.5 ft³/s (0.014 m³/s) on basis of area-velocity studies, and slope-area measurement at gage height 7.8 ft (2.38 m); no flow most of the time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 136 ft³/s (3,852 m³/s) at 0600 hours Aug. 14, gage height, 2.20 ft (0.671 m) no other peak above base of 80 ft³/s (2.3 m³/s); no flow most of the time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
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	.03
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	8.0	.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	.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	8.00	.03
MEAN	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.26	.001
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.0	.03
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	16	.06
CAL YR 1979	TOTAL 6.39		MEAN .018	MAX 5.8	MIN .00	AC-FT 13						
WTR YR 1980	TOTAL 8.03		MEAN .022	MAX 8.0	MIN .00	AC-FT 16						

08382830 PECOS RIVER BELOW SANTA ROSA DAM, NM

LOCATION.--Lat 35°01'52", long 104°41'09", Guadalupe County, Hydrologic Unit 13060001, in Jose Perea Grant, on right bank, 2.0 mi (3.2 km) southwest from mouth of Esteros Creek, 6.6 mi (10.6 km) north of Santa Rosa, and at mile 757.2 (1,218.3 km).

DRAINAGE AREA.--2,430 mi² (6,290 km²), approximately.

PERIOD OF RECORD.--January to September 1980.

GAGE.--Water-stage recorder. Altitude 4,640 ft (1,414 m) from topographic map.

REMARKS.--Records fair except those for periods of no gage height record June 26 to Sept. 30, which are poor. Flow regulated since Apr. 21, 1980 by Santa Rosa Lake. Diversions and groundwater withdrawals for irrigation of about 10,280 acres (42 km²) 1970 determination, above station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period January to September, 2,090 ft³/s (59.2 m³/s) June 26, gage height 4.57 ft (1.39 m); maximum gage height 4.87 ft (1.484 m) July 7; minimum daily, 2.0 ft³/s (0.06 m³/s) Sept. 11, 12, 15-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				---	12	11	12	7.6	8.1	8.0	21	26
2				---	12	11	12	7.6	8.1	7.0	22	25
3				---	12	11	12	7.6	7.9	7.0	22	24
4				---	12	11	11	7.6	7.9	6.0	24	24
5				---	11	11	12	7.6	7.9	6.0	22	24
6				---	11	11	12	7.6	7.7	6.0	22	25
7				---	11	11	12	8.1	7.7	450	27	27
8				---	11	11	13	12	7.7	1750	24	26
9				---	11	11	13	9.1	7.7	1700	23	33
10				---	10	10	14	8.8	7.7	1700	21	44
11				---	9.9	10	14	8.8	7.7	1600	21	2.0
12				---	9.7	10	14	8.8	7.7	850	21	2.0
13				---	9.7	10	15	8.8	7.7	680	21	2.5
14				---	9.5	11	16	8.8	7.7	610	480	3.0
15				---	9.9	11	14	8.8	7.7	520	275	2.0
16				---	11	11	12	8.8	7.7	350	40	2.0
17				9.9	11	11	11	8.8	7.6	300	22	2.0
18				9.5	11	11	12	8.6	7.6	110	16	2.0
19				9.7	9.9	12	13	8.4	7.6	25	12	4.0
20				11	11	12	17	8.4	7.6	22	10	6.0
21				11	11	13	11	8.4	7.6	20	8.0	5.0
22				11	12	13	7.0	8.4	7.6	22	7.5	5.0
23				13	13	13	7.0	8.4	7.6	18	7.5	4.0
24				12	12	14	7.6	8.4	7.6	16	8.0	4.0
25				12	11	14	7.6	8.4	7.6	16	10	4.0
26				13	11	11	7.6	8.4	276	16	9.0	4.0
27				13	9.1	9.1	7.6	8.2	14	18	8.0	4.0
28				12	14	12	7.6	8.2	12	18	220	4.0
29				14	17	13	7.6	8.2	10	18	250	3.5
30				12	---	12	7.6	8.2	9.0	20	35	3.0
31				12	---	12	---	8.1	---	21	28	---
TOTAL				---	325.7	354.1	339.2	261.9	514.0	10910.0	1737.0	346.0
MEAN				---	11.2	11.4	11.3	8.45	17.1	352	56.0	11.5
MAX				---	17	14	17	12	276	1750	480	44
MIN				---	9.1	9.1	7.0	7.6	7.6	6.0	7.5	2.0
AC-FT				---	646	702	673	519	1020	21640	3450	686

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 mi² (6,860 km²), 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 since Apr. 21, 1980 by Santa Rosa Dam 8.8 mi (14.2 km) upstream. Diversions for irrigation of about 10,280 acres (42 km²), 1970 determination, above station.

AVERAGE DISCHARGE.--63 years (1906, 1913-24, 1928-79), 135 ft³/s (3,823 m³/s), 97,810 acre-ft/yr (121 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,200 ft³/s (1,560 m³/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 ft³/s (906 m³/s); minimum 0.28 ft³/s (0.008 m³/s) Jan. 7, 1971. The flood of June 2, 1937, is the greatest since about 1886. Flood of Sept. 30, 1904, reached a stage of 24.7 ft (7.53 m), site and datum then in use, discharge, 45,000 ft³/s (1,290 m³/s), by Kutter's formula. Flood of June 9, 1903, reached a stage of 21.1 ft (6.43 m), same site and datum as in 1904, discharge, 34,000 ft³/s (963 m³/s), by comparison with 1904 flood.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,920 ft³/s (196 m³/s) Aug. 14, gage height, 6.49 ft (1.978 m); no peak above base of 4,000 ft³/s (110 m³/s); minimum daily discharge 3.3 ft³/s (0.093 m³/s) Feb. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	24	19	20	16	19	11	12	11	14	31	35
2	17	22	22	20	19	16	14	14	11	13	31	33
3	17	22	22	19	17	17	14	12	12	13	37	31
4	17	22	20	17	16	16	16	12	12	8.1	41	29
5	19	20	20	20	17	16	14	13	12	8.1	31	29
6	19	20	19	19	17	14	16	13	12	8.1	31	31
7	19	22	19	16	17	14	12	10	12	873	48	37
8	19	25	19	20	17	13	12	17	12	1920	31	33
9	19	27	19	20	19	13	14	11	13	1870	22	51
10	20	27	17	19	19	13	17	10	14	1870	22	86
11	22	24	17	19	20	14	17	10	14	1830	20	13
12	20	24	16	19	19	14	20	10	13	1340	17	5.3
13	20	24	17	17	17	13	24	11	12	846	16	8.1
14	19	25	19	16	17	14	41	12	12	694	1080	7.3
15	17	25	17	16	17	14	39	13	12	660	486	8.1
16	16	25	17	16	19	14	31	13	13	603	242	8.1
17	16	25	14	16	20	14	25	13	13	509	48	7.3
18	16	27	19	16	20	14	22	12	13	263	33	7.3
19	17	27	22	16	17	13	25	12	13	33	24	11
20	17	31	19	16	16	13	46	12	13	29	22	13
21	16	29	20	17	16	12	27	13	13	27	19	10
22	17	27	19	16	16	13	12	13	13	35	19	10
23	17	27	17	14	14	16	10	12	13	25	17	10
24	19	27	19	16	13	19	12	12	13	22	17	8.1
25	20	27	22	17	7.3	16	11	11	13	22	25	8.1
26	19	24	19	16	13	13	11	12	324	22	24	8.1
27	19	22	22	16	4.7	14	11	12	20	24	22	8.1
28	20	19	27	19	3.3	13	11	12	16	24	323	8.1
29	20	20	20	13	47	20	11	11	14	25	402	6.6
30	25	22	20	20	---	20	11	11	14	27	64	6.6
31	27	---	19	17	---	14	---	12	---	29	39	---
TOTAL	582	732	597	538	490.3	458	557	373	702	13686.3	3284	567.2
MEAN	18.8	24.4	19.3	17.4	16.9	14.8	18.6	12.0	23.4	441	106	18.9
MAX	27	31	27	20	47	20	46	17	324	1920	1080	86
MIN	16	19	14	13	3.3	12	10	10	11	8.1	16	5.3
AC-FT	1150	1450	1180	1070	973	908	1100	740	1390	27150	6510	1130
CAL YR 1979	TOTAL	74546.5	MEAN	204	MAX	1870	MIN	7.3	AC-FT	147900		
WTR YR 1980	TOTAL	22566.8	MEAN	61.7	MAX	1920	MIN	3.3	AC-FT	44760		

RIO GRANDE BASIN
08383000 PECOS RIVER AT SANTA ROSA, NM -- Continued
WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (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)	
DEC										
19...	1455	20	8.5	95	5.1	70	79	--	90	
JAN										
10...	1430	20	10.5	187	10	--	--	--	--	
FEB										
21...	1530	14	11.5	42	1.6	--	--	--	--	
MAR										
19...	1500	14	12.5	21	.79	--	--	--	--	
APR										
15...	0715	41	10.0	346	38	53	76	90	97	
17...	1530	25	25.0	42	2.8	--	--	--	--	
JUN										
26...	1135	1540	18.0	11000	45700	20	24	--	37	
JUL										
01...	1715	13	30.0	15	.53	--	--	--	--	
18...	1420	202	29.0	2170	1180	59	72	--	96	
AUG										
13...	1610	16	30.0	54	2.3	--	--	--	--	
14...	1500	395	20.0	17400	18600	49	57	--	86	
29...	0730	571	18.0	6120	9440	47	59	--	85	
30...	0650	72	18.0	4160	809	64	77	--	99	
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)
DEC										
19...	--	--	--	--	--	99	99	100	--	--
JAN										
10...	--	--	--	--	--	38	43	68	99	100
FEB										
21...	--	--	--	--	--	90	95	99	100	--
MAR										
19...	--	--	--	--	--	98	99	100	--	--
APR										
15...	99	100	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	98	100	--	--	--
JUN										
26...	--	92	98	100	--	--	--	--	--	--
JUL										
01...	--	--	--	--	--	99	99	100	--	--
18...	--	--	--	--	--	99	100	--	--	--
AUG										
13...	--	--	--	--	--	93	93	99	100	--
14...	--	99	99	100	--	--	--	--	--	--
29...	--	--	--	--	--	98	99	100	--	--
30...	--	100	--	--	--	--	--	--	--	--

RIO GRANDE BASIN
08383000 PECOS RIVER AT SANTA ROSA, NM -- Continued
WATER-QUALITY RECORDS

319

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1330	1420	1600	1510	1690	1790	1860	1800	1770	1520	2080	1590
2	1340	1420	1710	1540	1590	1880	1810	1690	1740	1510	2130	1680
3	1360	1450	1490	1550	1560	1830	1830	1820	1730	1500	2150	1740
4	1310	1420	1480	1590	1640	1870	1840	1750	1750	1740	2070	1770
5	1460	1430	1540	1570	1610	1920	1870	1830	1740	1760	2070	1800
6	1420	1370	1460	1580	1620	1910	1920	1780	1750	1770	2140	1750
7	1360	1440	1490	1630	1580	1940	1930	1810	1770	1800	1720	1680
8	1500	1430	1480	1560	1700	1960	1950	1250	1750	434	2020	1730
9	1450	1410	1530	1670	1760	1960	1940	1710	1720	412	2030	1660
10	1460	1490	1490	1640	1680	1990	1920	1760	1730	440	2140	1080
11	1410	1450	1580	1650	1650	1950	1930	1770	1720	432	2180	1830
12	1440	1390	1570	1580	1630	1980	1890	1800	1760	427	2200	2250
13	1420	1400	1510	1570	1680	2010	1880	1780	1740	461	2180	2190
14	1440	1400	1460	1520	1580	2040	1670	1810	1780	517	264	2180
15	1410	1430	1530	1560	1660	2050	1330	1680	1780	535	441	2200
16	1420	1420	1490	1560	1600	2020	1400	1780	1740	610	640	2150
17	1450	1400	1740	1640	1650	2030	1660	1750	1760	690	1200	2240
18	1330	1390	1740	1500	1640	2000	1500	1830	1760	832	1300	2240
19	1470	1450	1540	1600	1700	1740	1770	1810	1770	1740	1590	1910
20	1420	1460	1670	1620	1660	1810	1560	1800	1720	2000	1750	1830
21	1470	1420	1440	1580	1730	1830	1170	1860	1750	2010	1790	1970
22	1330	1460	1520	1640	1830	1830	1800	1790	1720	1960	1810	2020
23	1380	1430	1530	1600	1860	1840	1940	1820	1740	2020	1830	2040
24	1390	1480	1580	1570	1870	1730	1930	1830	1760	2070	1840	2020
25	1410	1510	1550	1610	2310	1790	1800	1820	1720	2040	1820	2020
26	1390	1520	1580	1580	2400	1840	1890	1800	659	2110	1670	1990
27	1350	1530	1310	1790	2530	1860	1880	1790	1120	2140	1760	2050
28	1410	1470	1480	1570	2690	1820	1820	1800	1290	2120	1780	2080
29	1470	1440	1560	1800	1550	1750	1820	1820	1320	2110	449	2130
30	1340	1530	1680	1780	---	1720	1840	1800	1480	2100	874	2140
31	1350	---	1600	1690	---	1790	---	1770	---	2110	891	---
MEAN	1400	1440	1550	1610	1780	1890	1780	1770	1650	1420	1640	1930
WTR YR 1980		MEAN	1650	MAX	2690	MIN	264					

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.0	6.5	4.0	3.0	2.0	3.0	5.0	12.5	25.0	20.0	19.0	27.0
2	12.0	5.0	7.5	5.5	2.5	7.0	7.0	11.0	12.0	20.0	19.0	17.0
3	13.0	5.0	3.0	5.0	3.0	6.0	6.0	13.0	13.0	19.0	20.5	18.0
4	11.0	13.5	4.0	4.5	5.5	6.0	7.0	15.0	15.0	20.0	20.0	18.0
5	12.5	5.5	5.5	9.0	4.0	5.0	9.0	13.0	19.0	19.0	21.0	20.0
6	11.5	7.0	3.0	6.0	7.0	7.0	11.0	13.0	16.0	24.0	19.0	21.0
7	13.0	7.0	4.5	1.5	13.0	7.0	10.0	14.0	15.0	20.0	21.0	19.0
8	12.5	10.0	3.0	8.0	5.0	5.0	6.5	15.0	17.5	20.0	20.0	27.0
9	10.5	9.0	6.5	5.5	4.0	7.0	7.5	14.0	18.0	22.0	20.0	18.0
10	9.0	8.5	5.0	8.0	4.0	5.0	9.0	26.0	18.0	22.5	21.0	15.0
11	11.0	5.0	5.0	7.0	3.0	9.0	10.0	12.0	17.0	23.0	19.0	17.0
12	13.0	5.0	2.5	4.5	10.5	7.0	6.0	10.0	19.0	24.0	18.0	17.0
13	11.5	4.0	3.0	10.0	5.0	5.0	7.5	11.0	16.0	25.0	19.0	17.0
14	12.0	5.0	3.0	7.0	7.0	10.0	7.0	14.0	15.0	24.0	18.0	18.0
15	11.5	4.5	9.0	10.0	10.0	18.0	10.0	12.0	17.0	23.0	20.0	18.0
16	12.0	4.0	2.5	8.0	3.0	10.0	12.0	12.0	17.0	23.0	19.0	18.0
17	12.0	6.0	2.0	5.5	10.0	5.0	10.0	15.0	20.0	24.0	20.0	14.0
18	11.0	7.0	1.0	6.5	8.0	7.0	11.0	15.0	20.0	24.0	20.0	15.0
19	11.0	6.0	5.5	5.0	7.0	5.0	11.5	14.0	19.0	25.0	19.0	16.0
20	12.0	7.0	5.0	5.0	11.0	7.0	14.0	15.0	18.0	23.0	18.0	18.0
21	12.0	3.0	5.0	3.0	7.5	7.0	14.0	15.0	18.0	20.0	17.0	17.0
22	7.5	4.0	5.0	4.0	7.0	9.0	14.0	16.0	20.0	19.0	19.0	18.0
23	7.5	5.0	2.0	2.0	5.5	8.0	13.0	16.0	16.0	20.0	20.0	17.0
24	9.0	5.0	1.0	3.0	9.0	6.0	12.0	16.0	18.0	20.0	23.0	17.0
25	9.0	8.0	5.0	3.5	3.5	7.0	9.0	13.0	19.0	21.0	20.0	16.0
26	10.5	8.0	6.0	2.5	4.5	7.0	11.0	13.0	18.0	22.0	19.0	18.0
27	10.0	10.0	6.5	2.5	5.0	10.0	14.0	13.5	18.5	22.0	18.0	17.0
28	11.5	3.0	3.5	2.0	8.0	8.0	11.5	16.0	20.0	21.0	18.0	20.0
29	8.0	5.0	1.0	3.0	8.0	14.5	12.0	15.0	23.0	19.0	18.0	18.0
30	8.0	2.0	4.0	3.5	---	9.0	12.0	13.0	18.0	20.0	18.0	17.0
31	7.0	---	3.5	1.5	---	7.5	---	16.0	---	21.0	20.0	---
MEAN	11.0	6.0	4.0	5.0	6.5	7.5	10.0	14.0	18.0	21.5	19.5	18.0
WTR YR 1980		MEAN	12.0	MAX	27.0	MIN	1.0					

DAY	MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION	
	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	110	5.0	114	7.4	126	6.5	108	5.8	134	5.8	150	7.7
2	87	4.0	101	6.0	118	7.0	121	6.5	99	5.1	151	6.5
3	85	3.9	113	6.7	161	9.6	90	4.6	89	4.1	123	5.6
4	82	3.8	89	5.3	120	6.5	115	5.3	81	3.5	110	4.8
5	90	4.6	97	5.2	107	5.8	115	6.2	79	3.6	102	4.4
6	77	4.0	88	4.8	110	5.6	100	5.1	77	3.5	100	3.8
7	86	4.4	93	5.5	138	7.1	137	5.9	85	3.9	93	3.5
8	81	4.2	93	6.3	115	5.9	107	5.8	102	4.7	104	3.7
9	82	4.2	101	7.4	116	6.0	109	5.9	74	3.8	100	3.5
10	85	4.6	82	6.0	105	4.8	125	6.4	70	3.6	74	2.6
11	86	5.1	113	7.3	96	4.4	97	5.0	84	4.5	63	2.4
12	65	3.5	87	5.6	99	4.3	93	4.8	75	3.8	80	3.0
13	68	3.7	101	6.5	127	5.8	106	4.9	74	3.4	76	2.7
14	77	4.0	88	5.9	129	6.6	104	4.5	86	3.9	86	3.3
15	130	6.0	91	6.1	104	4.8	107	4.6	75	3.4	85	3.2
16	62	2.7	90	6.1	117	5.4	77	3.3	72	3.7	57	2.2
17	67	2.9	97	6.5	125	4.7	81	3.5	78	4.2	68	2.6
18	69	3.0	88	6.4	148	7.6	63	2.7	84	4.5	79	3.0
19	84	3.9	92	6.7	119	7.1	78	3.4	72	3.3	82	2.9
20	85	3.9	127	11	121	6.2	87	3.8	87	3.8	75	2.6
21	88	3.8	144	11	99	5.3	103	4.7	80	3.5	93	3.0
22	79	3.6	129	9.4	90	4.6	94	4.1	88	3.8	68	2.4
23	97	4.5	108	7.9	98	4.5	92	3.5	70	2.6	70	3.0
24	120	6.2	74	5.4	165	8.5	115	5.0	67	2.4	69	3.5
25	101	5.5	71	5.2	1130	67	111	5.1	59	1.2	75	3.2
26	84	4.3	85	5.5	124	6.4	116	5.0	162	10	74	2.6
27	74	3.8	92	5.5	193	11	94	4.1	150	1.9	91	3.4
28	81	4.4	98	5.0	88	6.4	1550	80	95	.85	53	1.9
29	86	4.6	114	6.2	87	4.7	213	7.5	337	46	86	4.6
30	148	10	139	8.3	1450	78	155	8.4	---	---	110	5.9
31	176	13	---	---	825	42	150	6.9	---	---	69	2.6
TOTAL	---	145.1	---	198.1	---	360.1	---	232.3	---	152.35	---	110.1
DAY	MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION	
	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	67	2.0	85	2.8	64	1.9	26	.98	78	6.5	401	38
2	66	2.5	95	3.6	86	2.6						

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM
(Surveillance program 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 mi² (10,280 km²), 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 partially regulated since April 21, 1980 by Santa Rosa Lake. Diversions for irrigation of about 10,280 acres (42 km²), 1970 determination, above station. Discharge represents inflow to Lake Sumner.

AVERAGE DISCHARGE.--41 years (1939-79), 209 ft³/s (5.919 m³/s), 151,400 acre-ft/yr (187 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,600 ft³/s (1,380 m³/s) Sept. 1, 1942, gage height, 17.00 ft (5.182 m), from rating curve extended above 7,400 ft³/s (210 m³/s) on basis of flow at Santa Rosa; minimum, 11 ft³/s (0.31 m³/s) Jan. 31, 1951.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1886 occurred June 2, 1937, when peak at Santa Rosa was 55,200 ft³/s (1,560 m³/s) and peak inflow to Lake Sumner was about 75,000 ft³/s (2,120 m³/s). Flood of July 24, 1895, was reported as "highest in 10 years." Other major floods occurred on June 9, 1903, Sept. 30, 1904, and May 1, 1914.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,070 ft³/s (115 m³/s) Aug. 14, gage height, 4.67 ft (1.423 m), no peak above base of 5,500 ft³/s (160 m³/s); minimum discharge 48 ft³/s (1.36 m³/s) June 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	105	94	108	88	111	90	79	60	74	92	88
2	88	101	97	108	88	90	90	83	62	74	88	88
3	86	99	102	104	90	90	92	79	56	74	90	85
4	88	99	102	99	90	90	88	77	56	76	96	80
5	93	99	99	99	86	87	88	75	56	76	94	79
6	91	99	97	94	86	89	84	90	52	76	92	133
7	90	101	96	92	92	90	82	84	51	422	99	120
8	88	106	94	99	93	88	76	190	491	2220	121	99
9	88	106	94	109	94	88	80	197	106	2240	124	217
10	91	106	96	109	95	88	80	89	90	2180	94	307
11	93	103	96	101	94	90	78	82	84	2120	92	164
12	92	100	96	100	90	92	81	78	86	1730	96	94
13	90	100	99	97	87	89	84	76	75	1110	108	82
14	90	100	99	97	86	89	85	78	66	860	1320	85
15	92	101	96	99	86	90	95	101	63	764	541	84
16	91	100	96	98	93	91	95	104	62	701	546	79
17	89	97	99	97	89	92	86	92	62	633	180	75
18	92	99	99	96	95	92	82	90	60	527	189	77
19	88	97	101	98	90	93	80	88	57	259	159	72
20	88	97	104	103	90	94	76	86	59	138	95	77
21	85	97	104	102	88	94	91	84	64	138	88	70
22	89	97	104	100	88	95	97	80	56	118	83	68
23	93	99	104	98	86	102	79	78	52	116	79	67
24	95	99	99	94	88	104	74	76	51	99	79	67
25	96	100	96	92	88	99	83	74	52	96	90	70
26	96	98	101	91	84	94	81	72	60	96	96	86
27	90	97	116	93	88	92	79	70	160	92	100	85
28	89	97	118	92	82	94	81	66	86	92	92	81
29	90	97	113	90	84	101	81	67	76	92	533	77
30	106	97	111	90	---	104	79	64	76	92	221	74
31	112	---	111	91	---	94	---	66	---	92	111	---
TOTAL	2835	2993	3133	3040	2578	2896	2517	2715	2487	17477	5888	2930
MEAN	91.5	99.8	101	98.1	88.9	93.4	83.9	87.6	82.9	564	190	97.7
MAX	112	106	118	109	95	111	97	197	491	2240	1320	307
MIN	85	97	94	90	82	87	74	64	51	74	79	67
AC-FT	5620	5940	6210	6030	5110	5740	4990	5390	4930	34670	11680	5810
CAL YR 1979 TOTAL	103241		MEAN 283	MAX 2140	MIN 52	AC-FT 204800						
WTR YR 1980 TOTAL	51489		MEAN 141	MAX 2240	MIN 51	AC-FT 102100						

RIO GRANDE BASIN
08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM -- Continued
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1939-41, 1943, 1947-59, 1968 to current year.

REMARKS.--Prior to 1968 Water Year published as 8-3834, Pecos River at Puerto de Luna, N. Mex., which was located at bridge in the village of Puerto de Luna, 9 mi (14.5 km) northwest of the discharge station.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	
OCT 19...	1040	59	2260	8.2	22.5	14.5	35	9.8	19	1500	1400	480	
NOV 14...	1055	67	2750	8.4	12.0	8.5	17	11.4	16	1500	1400	490	
DEC 20...	1205	104	2600	8.0	20.5	6.0	23	11.6	34	1400	1300	470	
JAN 11...	1115	64	2650	8.0	7.0	5.0	24	11.7	7	1500	1400	490	
FEB 22...	1055	72	2620	8.0	13.5	9.0	21	10.4	20	1600	1500	510	
MAR 20...	0930	78	2900	8.3	9.5	9.0	11	10.7	8	1600	1500	530	
APR 18...	1045	69	2710	8.1	21.0	19.0	8.3	8.7	19	1600	1500	520	
MAY 06...	1510	88	2690	7.9	--	26.0	--	--	--	1600	1600	550	
JUL 01...	1230	74	2450	8.2	40.0	29.5	56	7.4	10	1500	1400	520	
AUG 14...	1105	1320	470	8.0	27.5	19.0	1600	6.4	310	190	130	65	
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 (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)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L) (00530)
OCT 19...	68	96	1.1	2.5	100	1400	130	.5	15	2400	2250	68	
NOV 14...	68	100	1.1	2.2	110	1400	130	.6	14	2380	2270	36	
DEC 20...	63	92	1.1	2.2	110	1300	120	.4	14	2420	2130	46	
JAN 11...	70	99	1.1	2.2	140	1400	130	.6	15	2530	2290	67	
FEB 22...	70	92	1.0	2.2	110	1500	130	.7	17	2510	2390	38	
MAR 20...	72	92	1.0	2.8	100	1500	140	.6	14	2570	2410	16	
APR 18...	64	96	1.1	2.5	95	1500	140	.9	.6	2490	2380	25	
MAY 06...	66	89	1.0	2.6	93	1500	150	.6	14	2580	2430	--	
JUL 01...	44	62	.7	2.7	100	1300	110	.7	9.5	2430	2110	98	
AUG 14...	7.9	11	.3	2.5	62	140	12	.1	4.0	280	281	1560	
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, ORTHOPH DISSOL. (MG/L AS P) (00671)	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- PENDE (MG/L AS C) (00689)
OCT 19...	.00	.00	.130	.140	.67	.80	.010	.010	100	20	1.2	.7	
NOV 14...	.04	.05	.090	.090	.70	.83	.020	.000	100	20	3.4	--	
DEC 20...	.09	.08	.130	.160	.62	.84	.030	.010	80	20	4.9	.4	
JAN 11...	.09	.09	.070	.070	.00	.14	.000	.000	100	30	2.4	.7	
FEB 22...	.09	.09	.110	.200	.21	.41	.030	.010	90	40	1.4	.6	
MAR 20...	.01	.01	.150	.170	.20	.36	.040	.010	110	50	1.7	.3	
APR 18...	.01	.04	.180	.180	.24	.43	.010	.000	110	30	1.8	.4	
MAY 06...	.02	.05	--	--	--	--	.030	.010	--	--	--	--	
JUL 01...	.00	.00	.070	.020	2.5	2.6	.090	.000	130	40	4.2	1.0	
AUG 14...	.37	.31	.030	.110	15	15	1.900	.010	140	40	5.7	38	

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	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, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
DEC 20...	1205	2	80	0	16	0	20	200	.0	0	20
MAR 20...	0930	1	110	20	10	20	50	100	.0	1	30
JUL 01...	1230	2	130	20	0	0	40	100	.1	0	50

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 19...	1040	45	52
NOV 14...	1055	2	21
DEC 20...	1205	4	2
JAN 11...	1115	16	35
FEB 22...	1055	1	4
MAR 20...	0930	1	2
APR 18...	1045	4	5
JUL 01...	1230	13	17
AUG 14...	1105	9500	10000

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (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 19...	1040	59	14.5	121	19	53
NOV 14...	1055	67	8.5	93	17	52
DEC 20...	1205	104	6.0	148	42	39
JAN 11...	1115	64	5.0	130	22	43
FEB 22...	1055	72	9.0	99	19	37
MAR 20...	0930	78	9.0	34	7.2	51
APR 18...	1045	69	19.0	78	15	23
JUL 01...	1230	74	29.5	158	32	75
AUG 14...	1105	1320	19.0	6230	22200	71

08384000 LAKE SUMNER NEAR FORT SUMNER, NM -- Continued

ELEVATION (FEETINGVD), 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	4274.30	4268.40	4269.60	4270.70	4271.40	4272.40	4272.30	4262.40	4262.10	4252.40	4224.70	4236.10
2	4274.30	4268.50	4269.60	4270.70	4271.40	4272.50	4272.30	4262.40	4262.00	4251.40	4224.50	4236.10
3	4274.30	4268.50	4269.60	4270.70	4271.50	4272.50	4272.30	4262.40	4261.90	4250.40	4224.30	4236.00
4	4274.30	4268.50	4269.70	4270.80	4271.50	4272.60	4272.30	4262.40	4261.90	4249.40	4224.10	4236.00
5	4274.20	4268.60	4269.70	4270.80	4271.60	4272.60	4272.30	4262.40	4261.90	4248.20	4224.00	4236.10
6	4274.20	4268.60	4269.70	4270.90	4271.60	4272.60	4272.30	4262.40	4261.80	4246.90	4224.00	4236.10
7	4274.20	4268.60	4269.80	4270.90	4271.70	4272.60	4272.20	4262.40	4261.80	4245.50	4223.80	4236.10
8	4274.20	4268.70	4269.80	4271.00	4271.70	4272.60	4272.20	4262.50	4261.80	4244.80	4223.60	4236.20
9	4274.10	4268.70	4269.80	4271.00	4271.70	4272.50	4272.20	4262.60	4262.20	4246.20	4223.40	4236.30
10	4274.10	4268.80	4269.90	4271.10	4271.80	4272.50	4271.80	4262.60	4262.20	4247.40	4223.20	4237.20
11	4274.00	4268.80	4269.90	4271.10	4271.80	4272.50	4271.30	4262.60	4262.20	4248.40	4223.10	4237.80
12	4274.00	4268.80	4269.90	4271.10	4271.90	4272.50	4270.80	4262.60	4262.20	4249.40	4223.00	4238.30
13	4274.00	4268.90	4270.00	4271.10	4271.90	4272.50	4270.30	4262.50	4262.10	4249.90	4222.80	4238.50
14	4274.00	4269.00	4270.00	4271.20	4272.00	4272.50	4269.80	4262.50	4262.00	4249.70	4222.70	4238.70
15	4273.50	4269.00	4270.00	4271.20	4272.00	4272.40	4269.30	4262.50	4261.90	4249.30	4222.80	4238.90
16	4272.90	4269.10	4270.10	4271.30	4272.10	4272.40	4268.80	4262.60	4261.90	4248.90	4231.90	4239.10
17	4272.40	4269.10	4270.10	4271.30	4272.10	4272.40	4268.30	4262.60	4261.80	4248.40	4233.40	4239.30
18	4271.80	4269.10	4270.10	4271.30	4272.10	4272.30	4267.80	4262.60	4261.80	4247.70	4233.70	4239.50
19	4271.70	4269.20	4270.20	4271.30	4272.20	4272.30	4267.30	4262.60	4261.80	4246.90	4234.00	4239.50
20	4271.70	4269.20	4270.20	4271.30	4272.20	4272.30	4266.80	4262.60	4261.20	4245.80	4234.10	4239.40
21	4271.30	4269.20	4270.30	4271.40	4272.20	4272.30	4266.30	4262.60	4260.40	4244.40	4234.10	4239.30
22	4270.70	4269.30	4270.30	4271.40	4272.30	4272.30	4265.80	4262.50	4259.60	4242.90	4234.10	4239.30
23	4270.20	4269.30	4270.30	4271.30	4272.30	4272.30	4265.30	4262.50	4258.90	4241.20	4234.10	4239.30
24	4269.60	4269.30	4270.40	4271.30	4272.30	4272.30	4264.80	4262.50	4258.10	4239.30	4234.10	4239.30
25	4269.00	4269.30	4270.40	4271.30	4272.30	4272.30	4264.20	4262.40	4257.40	4237.10	4234.10	4239.20
26	4268.50	4269.40	4270.50	4271.30	4272.30	4272.30	4263.60	4262.40	4256.60	4234.60	4234.10	4239.30
27	4268.50	4269.40	4270.50	4271.30	4272.40	4272.30	4263.00	4262.30	4255.80	4231.20	4234.10	4239.30
28	4268.50	4269.40	4270.60	4271.30	4272.40	4272.30	4262.40	4262.30	4255.10	4227.20	4234.10	4239.50
29	4268.50	4269.50	4270.60	4271.30	4272.40	4272.30	4262.40	4262.30	4254.20	4225.20	4234.30	4239.70
30	4268.50	4269.50	4270.60	4271.30	---	4272.30	4262.40	4262.20	4253.40	4225.10	4235.60	4239.80
31	4268.40	---	4270.70	4271.30	---	4272.30	---	4262.10	---	4224.90	4236.00	---
MEAN	4272.06	4268.99	4270.09	4271.14	4271.97	4272.41	4268.43	4262.46	4260.27	4243.23	4229.25	4238.17
MAX	4274.30	4269.50	4270.70	4271.40	4272.40	4272.60	4272.30	4262.60	4262.20	4252.40	4236.00	4239.80
MIN	4268.40	4268.40	4269.60	4270.70	4271.40	4272.30	4262.40	4262.10	4253.40	4224.90	4222.70	4236.00
CAL YR 1979	MEAN	4265.53	MAX	4363.10	MIN	4248.20						
WTR YR 1980	MEAN	4260.66	MAX	4274.30	MIN	4222.70						

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 mi² (11,370 km²), approximately (contributing area).

PERIOD OF RECORD.--October 1912 to April 1926, August 1926 to current year. Monthly discharge only for some periods, published in WSP 1312. 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. Diversion for irrigation of about 12,500 acres (51 km²), 1959 determination, above station. Flow regulated by Lake Sumner (station 08384000).

AVERAGE DISCHARGE.--23 years (1913-25, 1927-36), 236 ft³/s (6.684 m³/s), 171,000 acre-ft/yr (211 hm³/yr), prior to completion of Sumner Dam; 44 years (1937-80), 204 ft³/s (5.777 m³/s) 147,800 acre-ft/yr (182 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,800 ft³/s (1,210 m³/s) Sept. 1, 1942, by computation of flow over spillway and through outlet 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 ft³/s (2,120 m³/s) at site 1.5 mi (2.4 km) upstream, from peak inflow to Lake Sumner.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,090 ft³/s (30.9 m³/s) July 16, maximum gage height, 3.33 ft (1.015 m); June 19, July 15-17, 20; minimum daily, 0.28 ft³/s (0.008 m³/s) Sept. 28-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	15	11	11	12	10	84	81	100	931	102	90
2	84	12	11	11	13	10	84	81	100	965	102	90
3	84	13	11	11	13	9.7	75	80	100	957	101	91
4	85	13	11	11	13	8.6	68	79	99	960	101	91
5	83	14	11	11	13	2.9	68	86	99	986	101	92
6	82	15	11	11	13	82	67	91	99	972	102	91
7	82	15	11	11	13	82	66	91	99	963	102	91
8	96	15	11	11	10	82	68	91	99	957	102	87
9	97	13	11	11	10	82	713	91	99	962	101	85
10	98	11	10	11	11	82	1070	91	99	970	101	85
11	98	11	9.7	11	11	84	1030	90	99	973	101	37
12	99	11	9.7	11	11	84	1030	90	99	976	101	.51
13	98	11	9.7	11	11	84	1030	91	99	976	101	.60
14	736	12	9.7	11	11	84	1030	91	99	980	103	.78
15	1060	12	10	11	11	84	1030	91	98	1040	103	.87
16	1060	13	10	12	11	84	1030	90	99	1090	100	.84
17	1060	13	10	12	11	84	990	89	98	1080	101	.64
18	585	13	11	12	9.9	84	990	85	97	1070	101	.30
19	98	13	11	12	8.9	84	990	95	665	1080	101	86
20	596	13	11	40	8.8	84	990	101	962	1070	101	86
21	1070	13	11	104	8.9	84	990	102	970	1060	101	84
22	1070	13	11	97	8.9	84	990	101	976	1030	101	89
23	1070	13	10	98	8.8	84	991	101	979	1020	102	92
24	1070	13	10	98	9.3	84	978	100	980	1010	101	93
25	1080	12	11	99	9.5	84	973	100	979	996	94	93
26	410	11	11	99	9.5	84	980	101	981	1040	90	92
27	87	10	10	99	10	84	982	101	967	959	90	35
28	88	10	10	74	10	84	361	101	959	622	90	.28
29	89	10	11	12	10	84	81	101	955	101	91	.28
30	88	11	11	12	---	84	81	100	948	101	91	.28
31	87	---	11	12	---	84	---	101	---	101	90	---
TOTAL	12572	374	327.8	1057	310.5	2241.3	19910	2884	13102	27998	3069	1715.08
MEAN	406	12.5	10.6	34.1	10.7	72.3	664	93.0	437	903	99.0	57.2
MAX	1080	15	11	104	13	84	1070	102	981	1090	103	93
MIN	82	10	9.7	11	8.8	8.6	66	79	97	101	90	.28
AC-FT	24940	742	650	2100	616	4450	39490	5720	25990	55530	6090	3400
CAL YR 1979	TOTAL	60519.94	MEAN	166	MAX	1370	MIN	.09	AC-FT	120000		
WTR YR 1980	TOTAL	85560.68	MEAN	234	MAX	1090	MIN	.28	AC-FT	169700		

RIO GRANDE BASIN
08384500 PECOS RIVER BELOW SUMNER DAM, NM --- Continued
WATER-QUALITY RECORDS

327

PERIOD OF RECORD.--Water years 1937-66, 1972 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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 AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
OCT												
19...	0800	98	1170	8.2	18.0	17.0	17	8.7	--	570	470	190
NOV												
14...	1330	12	1210	8.4	14.5	12.0	2.3	11.6	--	630	530	210
DEC												
20...	0840	11	1380	8.1	4.5	3.5	2.2	12.1	--	720	610	240
JAN												
11...	0910	11	1610	8.3	3.5	5.0	1.8	10.8	--	780	650	260
FEB												
22...	0830	8.9	1540	8.2	11.5	6.0	2.6	11.0	10	820	720	270
MAR												
20...	0720	84	1540	8.5	7.5	7.0	4.1	10.5	--	850	740	280
APR												
18...	0837	970	1850	8.0	16.0	11.0	4.0	10.4	--	960	850	320
JUL												
01...	1445	916	2150	8.1	39.0	24.0	12	8.2	--	1100	1000	380
AUG												
14...	0830	102	2680	8.1	23.5	23.0	44	7.6	--	1400	1300	440

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 (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)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT												
19...	.0	.0	.6	2.5	96	500	40	.4	.0	903	855	.06
NOV												
14...	26	36	.6	2.3	100	530	44	.4	9.8	1030	919	.01
DEC												
20...	29	43	.7	2.3	110	590	52	.3	11	1090	1030	.03
JAN												
11...	31	45	.7	2.4	130	640	58	.4	11	1190	1130	.03
FEB												
22...	35	49	.7	2.3	100	740	64	.5	11	1260	1230	.09
MAR												
20...	36	50	.7	2.5	110	730	70	.3	9.8	1200	1240	.02
APR												
18...	39	51	.7	2.5	110	820	71	.4	9.7	1430	1380	.02
JUL												
01...	48	68	.9	3.0	130	990	120	.6	10	1760	1700	.00
AUG												
14...	63	82	1.0	3.0	97	1200	120	.6	7.6	2230	1980	.00

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)	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 (MG/L AS C) (00689)
OCT											
19...	.01	--	.090	--	--	.040	--	--	3.7	--	--
NOV											
14...	.02	.040	.050	.32	.37	.010	10	9	--	4.7	.2
DEC											
20...	.04	.060	.060	.35	.44	.000	--	--	5.8	--	--
JAN											
11...	1.3	.020	.010	.62	.67	.010	--	--	4.1	--	--
FEB											
22...	.08	.060	.060	.26	.41	.020	<10	20	--	2.7	1.5
MAR											
20...	.02	.120	.060	.82	.96	--	--	--	4.6	--	--
APR											
18...	.03	.100	.120	.48	.60	.060	--	--	4.1	--	--
JUL											
01...	.00	.160	.130	.36	.52	.040	<10	170	--	7.4	.7
AUG											
14...	.00	.190	.150	1.0	1.2	.080	40	550	--	3.5	1.4

RIO GRANDE BASIN
08384500 PECOS RIVER BELOW SUMNER DAM, NM -- Continued
WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
NOV 14...	1330	1	1	400	200	1	<1	10	0	0
DEC 20...	0840	--	--	--	--	--	--	--	--	--
FEB 22...	0830	2	1	400	100	0	<1	10	0	1
MAR 20...	0720	--	--	--	--	--	--	--	--	--
JUL 01...	1445	2	2	100	100	0	<1	0	0	0
AUG 14...	0830	2	2	300	200	0	0	10	10	1

	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 14...	<3	0	0	140	10	3	0	20	9	.1
DEC 20...	---	---	---	---	---	---	---	---	---	---
FEB 22...	<3	10	0	90	<10	1	2	20	20	.1
MAR 20...	---	---	---	---	---	---	---	---	---	---
JUL 01...	<3	10	2	320	10	13	0	220	170	.1
AUG 14...	0	0	0	1000	40	2	0	740	550	.1

DATE	TIME	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 RECOV- ERABLE (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 14...		.0	3	0	0	0	0	0	40	<3
DEC 20...		--	--	--	--	--	0	--	--	--
FEB 22...		.0	2	0	0	0	0	0	10	<3
MAR 20...		--	--	--	--	--	0	--	--	--
JUL 01...		.0	6	3	0	0	0	0	30	4
AUG 14...		.0	2	4	1	0	0	0	20	10

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 19...	0800	1	2
NOV 14...	1330	0	1
DEC 20...	0840	1	0
JAN 11...	0910	1	5
FEB 22...	0830	0	0
MAR 20...	0720	0	0
APR 18...	0837	0	5
JUL 01...	1445	0	2
AUG 14...	0830	26	26

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	OCT 19,79		NOV 14,79		MAR 20,80		JUL 1,80	
TIME	0800		1330		0720		1445	
TOTAL CELLS/ML	100		6900		550		1100	
DIVERSITY: DIVISION	0.0		0.4		1.4		1.6	
..CLASS	0.0		0.4		1.4		1.6	
..ORDER	0.0		0.4		1.4		1.8	
...FAMILY	1.0		0.5		2.0		2.1	
....GENUS	1.0		1.2		2.0		2.6	
ORGANISM	CELLS	PER-	CELLS	PER-	CELLS	PER-	CELLS	PER-
	/ML	CENT	/ML	CENT	/ML	CENT	/ML	CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
...OOCYSTACEAE								
....ANKISTRODESMUS	---	-	130	2	13	2	26	2
....CHLORELLA	---	-	---	-	---	-	90	8
....KIRCHNERIELLA	---	-	*	0	---	-	---	-
...OOCYSTIS	52#	50	*	0	---	-	320#	29
...SCENEDESMACEAE								
....CRUCIGENIA	---	-	160	2	---	-	52	5
...SCENEDESMUS	52#	50	---	-	---	-	52	5
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
...CHLAMYDOMONAS	---	-	*	0	---	-	13	1
CHRYSOPHYTA								
..BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	---	-	---	-	---	-	130	11
..PENNALES								
...DIATOMACEAE								
....DIATOMA	---	-	*	0	13	2	---	-
...NAVICULACEAE								
....NAVICULA	---	-	---	-	26	5	---	-
...NITZSCHACEAE								
....NITZSCHIA	---	-	*	0	---	-	26	2
CRYPTOPHYTA (CRYPTOMONADS)								
..CRYPTOPHYCEAE								
...CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
...CHROOMONAS	---	-	72	1	280#	51	13	1
...CRYPTOMONADACEAE								
...CRYPTOMONAS	---	-	---	-	100#	19	26	2
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	---	-	5100#	74	---	-	---	-
....ANACYSTIS	---	-	1400#	20	90#	16	370#	33
EUGLENOPHYTA (EUGLENOIDS)								
..EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	---	-	*	0	---	-	---	-
PYRRHOPHYTA (FIRE ALGAE)								
..DINOPHYCEAE								
..PERIDINIALES								
...GLENODINIACEAE								
....GLENODINIUM	---	-	---	-	26	5	---	-

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

RIO GRANDE BASIN
08384500 PECOS RIVER BELOW SUMNER DAM, NM -- Continued
WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
PERIPHYTON

DATE	TIME	LENGTH OF EXPO- SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00022)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M (00573)	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 Polyethylene strip
DEC 20...	0840	35	4.65	4.17	2.13	.190	225	
JAN 11...	0910	21	1.57	1.42	.760	.000	197	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)
OCT								
04...	0830	84	1070	20.0	18	4.1	--	--
09...	0915	97	1100	18.0	19	5.0	--	--
14...	0710	97	1260	17.0	39	10	--	--
14...	1745	1050	1180	17.5	29	82	--	--
18...	1145	1050	1110	18.0	19	54	--	--
18...	1430	98	1150	18.0	27	7.1	--	--
19...	0800	98	1170	17.0	21	5.6	96	100
20...	1145	860	1100	18.0	15	35	--	--
20...	1400	1070	1070	18.0	18	52	--	--
23...	1535	1070	1080	16.0	11	32	--	--
26...	0730	1050	1260	15.0	13	37	--	--
26...	0825	160	1230	15.0	10	4.3	--	--
31...	1645	88	1080	13.5	11	2.6	--	--
NOV								
14...	1330	12	1210	12.0	25	.81	71	--
DEC								
20...	0840	11	1380	3.5	12	.36	79	--
JAN								
11...	0910	11	1610	5.0	4	.12	100	--
FEB								
22...	0830	8.9	1540	6.0	4	.10	100	--
MAR								
10...	0800	82	1720	8.0	13	2.9	--	--
13...	1610	84	1700	8.5	21	4.8	--	--
14...	0900	84	1720	8.0	16	3.6	--	--
17...	0905	84	1720	8.0	14	3.2	--	--
20...	0720	84	1540	7.0	5	1.1	100	--
23...	0945	84	1760	9.5	15	3.4	--	--
APR								
02...	1135	84	1780	9.5	11	2.5	--	--
08...	0850	68	1800	10.0	7	1.3	--	--
09...	0645	70	1810	9.5	18	3.4	--	--
09...	0815	950	1850	9.5	319	818	--	--
09...	1010	990	1820	10.5	17	45	--	--
11...	1057	1030	1820	11.0	8	22	--	--
14...	0945	1030	1840	11.0	9	25	--	--
17...	1535	970	1660	12.0	61	160	--	--
18...	0837	970	1850	11.0	19	50	99	100
22...	0935	1010	1900	12.5	79	215	--	--
28...	0740	92	1870	13.0	63	16	--	--

RIO GRANDE BASIN
08384500 PECOS RIVER BELOW SUMNER DAM, NM -- Continued
WATER-QUALITY RECORDS

331

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE, WATER (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)
APR								
28...	1000	80	1870	13.5	67	14	--	--
MAY								
05...	0900	80	2000	13.5	103	22	--	--
16...	0800	91	1980	14.5	88	22	--	--
19...	0915	84	1960	15.5	100	23	--	--
27...	0730	101	2000	15.5	88	24	--	--
JUN								
04...	1345	99	2000	18.0	107	29	--	--
05...	0900	98	1990	18.0	101	27	--	--
12...	1000	99	1870	19.0	73	20	--	--
19...	0730	97	2010	19.0	64	17	--	--
19...	1810	950	2040	19.5	68	174	--	--
23...	1010	990	2090	21.0	55	147	--	--
JUL								
01...	1445	916	2150	24.0	15	37	99	100
03...	1425	930	2210	26.0	51	128	--	--
11...	0830	970	1910	26.0	47	123	--	--
16...	0830	1070	1030	25.0	29	84	--	--
24...	1530	1070	1010	26.0	30	87	--	--
25...	1405	990	1020	26.5	37	99	--	--
26...	0915	1010	1100	25.0	40	109	--	--
27...	1310	890	1230	25.5	50	120	--	--
28...	0910	1030	1340	25.5	61	170	--	--
28...	1555	100	1420	26.0	95	26	--	--
29...	1050	101	1520	25.0	96	26	--	--
29...	1309	101	1520	25.5	94	26	--	--
30...	1230	101	1650	25.0	113	31	--	--
31...	1545	101	1790	26.0	198	54	--	--
AUG								
01...	0720	101	1930	25.0	115	31	--	--
01...	1530	102	1820	25.0	53	15	--	--
04...	1210	101	2110	25.0	83	23	--	--
04...	1520	100	2140	25.0	95	26	--	--
05...	0805	101	2330	24.0	100	27	--	--
05...	1810	100	2400	25.0	120	32	--	--
06...	0900	102	2000	22.0	49	13	--	--
06...	0915	102	2350	24.5	89	25	--	--
06...	1615	102	2360	25.0	97	27	--	--
07...	0705	101	2390	24.0	79	22	--	--
07...	1900	101	2430	25.0	76	21	--	--
SEP								
02...	1320	91	1950	22.5	58	14	--	--
03...	0820	91	1940	22.0	54	13	--	--
11...	1010	66	1920	20.0	67	12	--	--
27...	0830	46	2290	19.0	76	9.4	--	--

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 km²), 1961 determination, by the Fort Sumner Irrigation District. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--29 years (1940-42, 1955-80), 49.3 ft³/s (1.396 m³/s), 35,720 acre-ft/yr (44.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 174 ft³/s (4.93 m³/s) July 22, 1941; no flow many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	36	.00	.00	.00	.00	85	83	97	98	102	90
2	89	2.2	.00	.00	.00	.00	85	84	98	103	102	90
3	86	1.4	.00	.00	.00	.00	84	80	98	104	102	90
4	82	1.2	.00	.00	.00	.00	74	84	98	103	101	90
5	89	.00	.00	.00	.00	.00	69	78	97	104	101	91
6	87	.00	.00	.00	.00	39	68	88	97	103	101	94
7	80	.00	.00	.00	.00	68	70	88	97	102	101	92
8	82	.00	.00	.00	.00	68	66	92	95	102	101	92
9	102	.00	.00	.00	.00	73	76	89	106	102	101	100
10	98	.00	.00	.00	.00	75	86	85	104	101	101	111
11	94	.00	.00	.00	.00	79	85	81	105	101	101	71
12	94	.00	.00	.00	.00	76	85	76	102	101	101	.00
13	95	.00	.00	.00	.00	76	80	72	101	101	101	.00
14	98	.00	.00	.00	.00	80	77	71	100	101	102	.00
15	102	.00	.00	.00	.00	80	78	69	100	101	102	.00
16	101	.00	.00	.00	.00	77	78	65	98	101	101	.00
17	101	.00	.00	.00	.00	75	75	62	98	102	101	.00
18	104	.00	.00	.00	.00	81	81	71	98	103	101	.00
19	91	.00	.00	.00	.00	80	82	82	98	104	100	85
20	94	.00	.00	.00	.00	80	81	92	97	103	100	85
21	109	.00	.00	45	.00	81	76	91	94	103	100	85
22	110	.00	.00	81	.00	82	72	91	93	102	99	85
23	108	.00	.00	84	.00	82	67	91	93	102	98	90
24	114	.00	.00	89	.00	78	66	91	93	102	98	90
25	114	.00	.00	90	.00	78	65	90	94	102	98	90
26	106	.00	.00	92	.00	76	71	94	93	104	94	90
27	92	.00	.00	91	.00	78	71	97	93	104	94	35
28	89	.00	.00	66	.00	80	67	99	93	104	93	.00
29	86	.00	.00	.30	.00	79	84	98	92	104	94	.00
30	87	.00	.00	.00	---	76	81	97	92	104	91	.00
31	86	---	.00	.00	---	79	---	97	---	104	90	---
TOTAL	2950	40.80	.00	638.30	.00	1976.00	2285	2628	2914	3175	3072	1746.00
MEAN	95.2	1.36	.000	20.6	.000	63.7	76.2	84.8	97.1	102	99.1	58.2
MAX	114	36	.00	92	.00	82	86	99	106	104	102	111
MIN	80	.00	.00	.00	.00	.00	65	62	92	98	90	.00
AC-FT	5850	81	.00	1270	.00	3920	4530	5210	5780	6300	6090	3460
CAL YR 1979	TOTAL	18517.50	MEAN	50.7	MAX	114	MIN	.00	AC-FT	36730		
WTR YR 1980	TOTAL	21425.10	MEAN	58.5	MAX	114	MIN	.00	AC-FT	42500		

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 mi² (29,470 km²), 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 ft³/s (0.28 m³/s), which are poor. Flow regulated by Lake Sumner (station 08384000). Diversions for irrigation of about 20,000 acres (81 km²), 1959 determination, above station.

AVERAGE DISCHARGE.--43 years (1938-80), 185 ft³/s (5.239 m³/s), 134,000 acre-ft/yr (165 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,000 ft³/s (1,270 m³/s) Sept. 23, 1941, gage height, 13.71 ft (4.179 m), from rating curve extended above 26,000 ft³/s (736 m³/s); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of May 28, 1937, reached a discharge of 53,000 ft³/s (1,500 m³/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, 2,840 ft³/s (80.4 m³/s) at 2300 hours Sept. 10, gage height, 6.80 ft (2.073 m), no other peak above base of 2,500 ft³/s (71 m³/s); minimum daily, 0.30 ft³/s (0.008 m³/s) June 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	110	17	21	83	14	11	223	18	785	136	7.3
2	6.6	105	20	21	61	12	11	174	12	785	95	4.4
3	5.5	97	18	21	45	12	7.7	122	7.3	763	73	1.2
4	4.4	83	21	20	37	13	5.8	107	7.0	862	65	1.6
5	4.0	61	21	20	32	12	5.5	88	4.7	818	56	.68
6	3.7	50	21	18	29	11	10	77	3.5	862	58	11
7	3.2	46	21	16	26	10	10	65	1.9	873	46	22
8	2.9	40	19	15	26	9.0	9.5	58	.94	895	31	85
9	2.7	37	19	17	35	9.0	8.2	75	1.2	873	24	46
10	2.1	39	20	16	26	8.0	7.7	219	2.1	829	20	776
11	2.1	36	20	16	29	7.3	111	110	65	763	17	1500
12	1.9	31	19	16	32	7.3	700	50	40	829	19	362
13	1.6	28	21	15	35	5.8	763	36	28	829	17	234
14	1.6	27	25	16	40	4.7	741	34	17	840	17	422
15	1.6	24	32	15	45	4.7	690	43	13	851	17	529
16	139	23	32	15	50	4.4	680	60	5.1	796	15	215
17	710	23	29	16	48	3.7	710	157	.54	884	50	107
18	807	23	26	17	46	4.0	741	116	.50	906	28	73
19	796	21	23	18	43	4.4	785	73	.50	906	20	60
20	426	20	23	20	37	4.7	840	48	.40	906	63	48
21	234	18	29	20	34	5.5	862	36	.30	906	24	35
22	458	18	26	27	31	6.6	774	31	466	950	18	25
23	862	18	23	34	27	7.0	752	27	640	906	14	17
24	917	18	21	32	25	7.7	785	23	730	928	17	18
25	917	17	21	34	24	7.3	796	20	807	939	8.6	18
26	928	23	21	31	22	6.6	774	16	796	939	8.6	41
27	838	23	21	26	20	7.7	752	14	752	928	12	67
28	245	22	22	33	18	8.1	851	15	796	962	18	73
29	167	15	22	41	16	8.6	884	14	807	895	24	60
30	160	18	22	55	---	12	405	15	807	730	20	61
31	136	---	21	73	---	12	---	15	---	248	12	---
TOTAL	8791.6	1114	696	755	1022	250.1	14482.4	2161	6829.98	26186	1043.2	4920.18
MEAN	284	37.1	22.5	24.4	35.2	8.07	483	69.7	228	845	33.7	164
MAX	928	110	32	73	83	14	884	223	807	962	136	1500
MIN	1.6	15	17	15	16	3.7	5.5	14	.30	248	8.6	.68
AC-FT	17440	2210	1380	1500	2030	496	28730	4290	13550	51940	2070	9760
CAL YR 1979 TOTAL	45288.50			MEAN 124	MAX 1170	MIN .00	AC-FT 89830					
WTR YR 1980 TOTAL	68251.46			MEAN 186	MAX 1500	MIN .30	AC-FT 135400					

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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS 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												
31...	1415	136	1660	8.1	12.0	820	710	270	36	68	1.0	2.8
DEC												
10...	1445	21	3420	7.8	11.0	1400	1300	390	96	300	3.5	4.6
JAN												
07...	1150	16	3550	8.0	4.0	1500	--	420	100	330	3.8	3.2
FEB												
12...	1045	32	3490	8.0	2.0	1400	1300	410	95	290	3.4	4.0
MAR												
11...	1030	7.3	4430	7.8	13.5	1800	1700	490	130	440	4.6	5.7
APR												
28...	1130	851	1810	8.1	16.0	940	850	310	41	64	.9	3.0
MAY												
14...	1115	34	3100	8.2	15.0	1300	1200	380	81	230	2.8	5.4
JUN												
06...	1045	3.5	4050	8.0	26.0	1800	1700	540	120	350	3.5	6.3
JUL												
15...	1010	851	1950	8.0	25.0	950	870	300	48	67	.9	3.2
AUG												
04...	1100	65	1780	7.9	28.0	860	810	270	46	86	1.3	3.3
SEP												
23...	1030	17	3070	8.2	19.5	1300	1200	380	89	240	2.9	5.0

DATE	ALKA- LITY (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 CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHOPHOSPHATE DISSOL. (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT											
31...	110	690	97	.4	11	1340	1240	.31	.000	110	40
DEC											
10...	94	1300	410	.4	14	--	2570	.41	--	--	--
JAN											
07...	--	1400	450	.5	13	--	2720	.31	--	--	--
FEB											
12...	110	1100	460	.4	13	--	2440	.30	--	--	--
MAR											
11...	94	1600	630	.5	13	--	3370	.18	--	--	--
APR											
28...	98	820	93	.5	9.9	--	1400	.02	--	--	--
MAY											
14...	83	1200	330	.3	14	--	2290	.83	--	--	--
JUN											
06...	110	1700	490	.2	11	3470	3280	.00	.000	300	50
JUL											
15...	74	920	89	.8	11	--	1480	.07	--	--	--
AUG											
04...	57	850	120	.4	13	--	1420	.00	--	--	--
SEP											
23...	77	1300	340	.6	14	--	2420	.03	--	--	--

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 acre-ft only prior to January 1973, published as a supplement to 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. Some observations of water temperatures were made during the year.

AVERAGE DISCHARGE.--20 years, 0.44 ft³/s (0.012 m³/s), 319 acre-ft/yr (393,000 m³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 6.6 ft³/s (0.19 m³/s) June 15, 1961; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 0.34 ft³/s (0.010 m³/s) Sept. 9; no flow most of the time.

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	.08
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	.08
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.34
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	.07
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.11	.01
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
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	.30	.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	.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	.41	.59
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.013	.020
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	.34
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	.8	1.2
CAL YR 1979	TOTAL 0.04		MEAN .000	MAX .04	MIN .00	AC-FT .08						
WTR YR 1980	TOTAL 1.00		MEAN .003	MAX .34	MIN .00	AC-FT 2.0						

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 mi² (21.08 km²).

PERIOD OF RECORD.--August 1969 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 7,600 ft (2,316 m), from topographic map.

REMARKS.--Records poor. 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, 3.14 ft³/s (0.089 m³/s), 2,270 acre-ft/yr (2.80 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 206 ft³/s (5,834 m³/s) Dec. 19, 1978, gage height, 3.79 ft (1.155 m), from rating curve extended above 21 ft³/s (0.59 m³/s); minimum, 0.05 ft³/s (0.001 m³/s) June 30, July 3, 4, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31 ft³/s (0.88 m³/s) at 1015 Feb. 10, gage height, 3.00 ft (0.914 m), no other peak above base of 25 ft³/s (0.7 m³/s); minimum, 0.47 ft³/s (0.013 m³/s) June 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	1.4	.77	.77	3.7	3.3	2.0	4.7	1.6	.83	.83	2.1
2	1.7	1.4	.77	.76	3.2	3.2	2.0	4.2	1.4	.85	.74	1.9
3	1.6	1.4	.81	1.2	3.0	3.1	2.0	5.1	1.3	.84	.67	1.8
4	1.6	1.3	.81	.77	2.8	3.2	2.1	5.1	1.2	.90	1.3	1.6
5	1.9	1.3	.78	.81	2.7	3.0	2.2	4.8	1.1	1.0	1.4	1.5
6	2.7	1.4	.79	.84	2.6	2.8	2.3	6.1	1.0	1.0	.78	2.5
7	2.7	1.4	.79	.85	2.5	2.6	2.6	8.0	.97	1.1	.97	2.2
8	2.7	2.0	.83	.89	2.3	2.5	2.8	8.2	.93	.78	.99	2.9
9	2.8	1.7	.83	.92	2.6	2.4	2.9	7.6	.89	.72	.78	8.8
10	2.7	1.6	.84	.93	8.0	2.4	2.9	7.1	.89	.72	.81	15
11	2.7	1.5	.81	.97	2.5	3.6	3.2	6.9	.81	.70	.75	10
12	2.7	1.5	.87	.99	3.3	3.2	3.8	6.0	.71	.72	.76	6.5
13	2.6	1.4	.89	1.1	2.2	2.9	4.0	5.2	.66	.73	.94	5.4
14	2.6	1.4	.81	1.2	3.1	2.7	3.9	5.0	.66	.70	4.1	4.7
15	2.6	1.3	.70	4.6	4.3	2.6	3.8	4.7	.63	.68	2.9	4.2
16	2.6	1.3	.69	2.6	4.2	2.7	3.6	4.5	.61	.66	2.4	3.4
17	2.5	1.3	.68	2.1	3.9	2.8	3.6	4.1	.60	.71	2.0	3.0
18	2.5	1.3	.68	1.9	3.8	2.9	4.0	4.2	.58	.73	1.6	2.7
19	2.5	1.3	.69	1.8	3.8	2.9	4.7	4.1	.54	.69	1.5	2.5
20	2.4	1.3	.69	1.7	4.1	2.9	5.0	3.8	.57	.67	1.3	2.2
21	2.3	1.2	.71	1.8	3.8	2.9	5.7	4.1	.56	.71	1.2	2.0
22	1.6	1.3	.72	2.2	3.8	2.8	5.8	4.0	.54	.74	1.2	1.8
23	1.6	1.3	.72	5.2	3.6	2.9	6.2	4.1	.52	.68	2.1	1.7
24	1.5	1.3	1.2	2.1	3.4	2.8	6.1	4.2	.53	.79	3.6	1.6
25	1.4	1.3	.71	2.1	3.3	2.7	5.5	3.5	.52	.78	3.8	1.7
26	1.4	1.3	.76	2.1	3.2	2.6	4.6	2.9	.51	.77	4.6	7.2
27	1.3	1.3	.79	2.2	3.2	2.5	4.1	2.6	.50	1.1	4.5	9.7
28	1.3	1.3	.86	2.2	3.2	2.4	3.8	2.3	.70	1.5	5.3	7.8
29	1.3	1.2	1.3	2.5	3.2	2.3	3.7	2.1	.93	2.4	5.4	5.8
30	1.4	.95	.69	3.2	---	2.2	4.2	1.9	.87	1.3	4.1	4.4
31	1.4	---	.71	4.2	---	2.1	---	1.7	---	.99	1.9	---
TOTAL	64.5	40.95	24.70	57.50	99.3	85.9	113.1	142.8	23.83	27.49	65.22	128.6
MEAN	2.08	1.37	.80	1.85	3.42	2.77	3.77	4.61	.79	.89	2.10	4.29
MAX	2.8	2.0	1.3	5.2	8.0	3.6	6.2	8.2	1.6	2.4	5.4	15
MIN	1.3	.95	.68	.76	2.2	2.1	2.0	1.7	.50	.66	.67	1.5
AC-FT	128	81	49	114	197	170	224	283	47	55	129	255

CAL YR 1979 TOTAL 2014.62 MEAN 5.52 MAX 19 MIN .68 AC-FT 4000
WTR YR 1980 TOTAL 873.89 MEAN 2.39 MAX 15 MIN .50 AC-FT 1730

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 mi² (2,450 km²), contributing area.
 PERIOD OF RECORD.--May 1908 to August 1909, May 1939 to current year. Monthly discharge only for 1908-9, published in Technical Report No. 7, State of New Mexico, Streamflow and Reservoir Content 1888-1954.
 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 opposite bank at same datum. Supplemental water-stage recorder on opposite bank Nov. 11, 1965, to December 1972, at same datum.
 REMARKS.--Records good. Diversions and ground-water withdrawals above station for irrigation above and below station of about 6,500 acres (26 km²), 1959 determination. Several observations of water temperature were made during the year.
 AVERAGE DISCHARGE.--41 years (1939-80) 21.9 ft³/s (0.620 m³/s), 15,870 acre-ft/yr (19.6 hm³/yr).
 EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54,800 ft³/s (1,550 m³/s) June 18, 1965, gage height, 26.40 ft (8.047 m), from rating curve extended above 3,000 ft³/s (85.0 m³/s) on basis of slope-area measurement of peak flow; maximum gage height, 28.78 ft (8.772 m), Sept. 22, 1941; no flow most of time.
 EXTREMES OUTSIDE PERIOD OF RECORD.--A flood on June 1, 1937, reached a discharge of 24,900 ft³/s (705 m³/s) at Riverside about 13 mi (21 km) upstream. Other major floods occurred Oct. 31, 1901, Sept. 29, 30, 1904, and July 25, 1905.
 EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Aug. 14	1545	1,140 32.3	13.92 4.243	Sept. 9	2200	*4,970 141	27.74 8.455
Aug. 19	0300	1,230 34.8	14.50 4.420				

No flow most of the time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	1.8	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	1.7	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.93	.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	57
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	32
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	996
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	572
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	118
13	.00	.00	.00	.00	.00	.00	1.7	.00	.00	.00	.00	92
14	.00	.00	.00	.00	.00	.00	3.5	.00	.00	.00	.00	147
15	.00	.00	.00	.00	.00	.00	1.6	.67	.00	.00	177	169
16	.00	.00	.00	.00	.00	.00	.48	.13	.00	.00	3.7	202
17	.00	.00	.00	.00	.00	.00	.23	.20	.00	.00	.00	104
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	81
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	65
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	404	55
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	48	44
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	34
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	25
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	22
25	.00	.00	1.1	.00	.00	.00	.00	.00	.00	.00	.00	19
26	.00	.00	1.8	.00	.00	.00	.00	.00	.00	.00	.00	17
27	.00	.00	1.4	.00	.00	.00	.00	.00	.00	.00	.00	100
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	21	53
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	26	52
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.9	46
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.4	39
TOTAL	.00	.00	6.10	4.43	.00	.00	7.51	1.00	.00	.00	689.00	3141.00
MEAN	.000	.000	.20	.14	.000	.000	.25	.032	.000	.000	22.2	105
MAX	.00	.00	1.8	1.8	.00	.00	3.5	.67	.00	.00	404	996
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	12	8.8	.00	.00	15	2.0	.00	.00	1370	6230
CAL YR 1979	TOTAL	13253.91	MEAN 36.3	MAX 1400	MIN .00	AC-FT 26290						
WTR YR 1980	TOTAL	3849.04	MEAN 10.5	MAX 996	MIN .00	AC-FT 7630						

RIO GRANDE BASIN

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 mi² (2,660 km²); Rio Hondo, 963 mi² (2,494 km²); Rocky Arroyo, 64 mi² (166 km²).

PERIOD OF RECORD.--July 1963 to current year. Prior to October 1965 (monthend contents only). 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 Rocky Arroyo which forms Rocky Arroyo Reservoir. Above elevation 3,980.0 ft (1,213.10 m) the pools of the two reservoirs combine to form Two Rivers Reservoir with a total capacity of 166,200 acre-ft (205 hm³) at elevation 4,032.0 ft (1,228.95 m) crest of ungated spillway. Capacity of Rio Hondo Reservoir, 181 acre-ft (223,000 m³) 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 hm³) 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.--Maximum contents at 0800 hours of Rio Hondo Reservoir, 1,260 acre-ft (1.55 hm³) July 29, 1965, elevation, 3,985.7 ft (1,214.84 m); Rocky Arroyo Reservoir at 0800 hours, 6,090 acre-ft (7.51 hm³) June 18, 1965, elevation, 3,970.7 ft (1,210.27 m); no contents both reservoirs most of time.

EXTREMES FOR CURRENT YEAR.--Maximum contents at 2400 hours of Rio Hondo Reservoir, 581 acre-ft (716,400 m³) Sept. 10, elevation, 3,984.0 ft (1,214.32 m); Rocky Arroyo Reservoir at 2400 hours, 588 acre-ft (725,000 m³) Sept. 10, elevation, 3,956.0 ft (1,205.79 m); no contents both reservoirs most of the time.

CONTENTS, IN ACRE-FEET, AND ELEVATION, IN FEET, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

NO CONTENTS DURING YEAR EXCEPT:

RIO HONDO RESERVOIR			ROCKY ARROYO RESERVOIR		
DATE	ELEVATION	CONTENTS	DATE	ELEVATION	CONTENTS
Sept. 9	3,972.00	8	Sept. 9	3,946.00	4
10	3,984.00	581	10	3,956.00	588
11	3,983.75	556	11	3,953.00	258
12	3,981.50	283	12	EMPTY	
13	3,981.00	244	13	EMPTY	
14	3,982.00	322	14	3,950.00	79
15	3,979.70	166	15	EMPTY	

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 mi² (2,490 km²), contributing area.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,949.68 ft (1,203.862 m) 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 km²), 1959 determination, above station. This record represents the outflow from Two Rivers Reservoir through Diamond A Dam. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--17 years, 9.19 ft³/s (0.260 m³/s), 6,660 acre-ft/yr (8.21 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 659 ft³/s (18.7 m³/s) July 29, 1965, gage height, 4.91 ft (1.497 m); no flow most of time.

EXTREMES FOR CURVES FOR PERIOD OF RECORD.--Maximum discharge, 659 ft³/s (18.7 m³/s) July 29, 1965, gage height, 4.91 ft (1.497 m); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 284 ft³/s (8.0 m³/s) Sept. 9, gage height, 3.34 ft (1.018 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
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	.02
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	.01
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03
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	20
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	21
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	80
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05
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	64
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	118
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	60	118
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	64	168
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.58	156
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	65
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	56
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	91	47
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	24	41
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.8	32
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.22	24
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	19
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	16
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	12
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	75
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.29	53
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	12	49
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.22	47
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	37
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.07	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	256.48	1318.11
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	8.27	43.9
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	91	168
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	509	2610
CAL YR 1979	TOTAL	9982.73	MEAN	27.3	MAX	227	MIN	.00	AC-FT	19800		
WTR YR 1980	TOTAL	1574.59	MEAN	4.30	MAX	168	MIN	.00	AC-FT	3120		

08393200 ROCKY ARROYO ABOVE TWO RIVERS RESERVOIR, NEAR ROSWELL, NM

LOCATION.--Lat 33°17'07", long 104°47'47", in NE¼SW¼ sec. 11, T.12, S., R.21½ E., Chaves County, Hydrologic Unit 13060008, on left bank, 2.1 mi (3.4 km) upstream from mouth of Buchanan Draw, 5.2 mi (8.4 km) upstream from Rocky Dam (Two Rivers Reservoir), and 17 mi (27.4 km) southwest of Roswell.

DRAINAGE AREA.--31 mi² (80 km²), approximately.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,059.17 ft (1,237.235 m) Corps of Engineers datum. Prior to Dec. 7, 1968, at site on opposite bank at datum 3.72 ft (1.134 m) lower.

REMARKS.--Records good. No diversions above station. Flow past station represents inflow to Two Rivers Reservoir.

AVERAGE DISCHARGE.--17 years, 0.89 ft³/s (0.025 m³/s), 645 acre-ft/yr (795,000 m³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft³/s (340 m³/s) July 5, 1968, gage height, 11.53 ft (3.514 m), from floodmarks, present datum, from rating curve extended above 350 ft³/s (9.91 m³/s) on basis of slope-area measurements at gage heights 5.92 ft (1.804 m), 7.14 ft (2.176 m), and 11.53 ft (3.514 m), present datum; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 90 ft³/s (2.5 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Aug. 14	1800	3,450 97.7	7.04 2.146	Sept. 26	1130	744 21.1	4.22 1.286
Sept. 13	2200	1,080 30.6	4.74 1.445				

No flow most of the time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
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	138	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	55	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	264	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	12	.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	239
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.7
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	276.00	434.70
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	8.90	14.5
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	264	239
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	547	862

CAL YR 1979 TOTAL 29.20 MEAN .080 MAX 28 MIN .00 AC-FT 58
WTR YR 1980 TOTAL 710.70 MEAN 1.94 MAX 264 MIN .00 AC-FT 1410

08393300 ROCKY ARROYO BELOW ROCKY DAM, NEAR ROSWELL, NM

LOCATION.--Lat 33°16'11", long 104°43'13", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T.12 S., R.22 E., Chaves County, Hydrologic Unit 13060008, on left bank, 300 ft (90 m) downstream from outlet structure in Rocky Dam (Two Rivers Reservoir) and 13.5 mi (21.7 km) southwest of Roswell.

DRAINAGE AREA.--64 mi² (166 km²), approximately.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,935.66 ft (1,199.589 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Jan. 12, 1972, at site 1.4 mi (2.3 km) downstream at datum 28.76 ft (8.766 m) lower.

REMARKS.--Records good. No diversions above station. This record represents the outflow from Two Rivers Reservoir through Rocky Dam. Outlet conduits in Rocky Dam have fixed openings.

AVERAGE DISCHARGE.--17 years, 1.75 ft³/s (0.050 m³/s), 1,270 acre-ft/yr (1.57 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 548 ft³/s (15.5 m³/s) Aug. 21, 1966, gage height, 4.57 ft (1.393 m), site and datum then in use, from rating curve extended above 260 ft³/s (7.36 m³/s); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 246 ft³/s (6.967 m³/s) Sept. 10, gage height, 2.88 ft (0.878 m); no flow most of the time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
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	174
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	202
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	41
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.1
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	16	126
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	75	8.1
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	19	.06
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.9	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.9	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.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	91
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	135
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.3
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
30	.00	.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	118.82	784.58
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	3.83	26.2
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	75	202
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	236	1560

CAL YR 1979 TOTAL 0.97 MEAN .003 MAX .51 MIN .00 AC-FT 1.9
WTR YR 1980 TOTAL 903.40 MEAN 2.47 MAX 202 MIN .00 AC-FT 1790

RIO GRANDE BASIN

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 mi² (35,300 km²), approximately (contributing area).

PERIOD OF RECORD.--February 1968 to current year (operated as a low-flow station only).

GAGE.--Water-stage recorder. Altitude of gage is 3,390 ft (1,033 m), from topographic map.

REMARKS.--Records poor. Flow partly regulated by Lake Sumner (station 08384000). Diversions and ground-water withdrawals for irrigation of about 80,000 acres (320 km²) above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge determined 3,700 ft³/s (10.5 m³/s) Sept. 11, 1969; no flow at times in 1971, 1974, 1976, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge determined 2,520 ft³/s (71.4 m³/s) Sept. 11; minimum 1.7 ft³/s (0.048 m³/s) June 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	153	42	55	87	37	22	241	25	692	185	24
2	12	135	41	55	94	35	23	210	22	708	143	22
3	11	131	41	55	88	35	22	164	25	708	108	19
4	8.7	127	42	52	76	36	22	145	23	714	88	20
5	11	115	44	50	68	35	20	131	18	724	74	15
6	10	99	42	50	64	33	19	111	15	719	75	9.2
7	9.7	87	42	50	59	31	17	97	13	780	76	17
8	8.7	83	42	49	56	30	18	83	11	790	55	22
9	7.3	76	42	48	55	30	19	70	11	802	43	73
10	7.8	74	42	48	48	29	19	66	11	768	35	148
11	8.7	68	41	47	54	29	19	130	11	780	32	2520
12	8.7	68	41	46	57	26	305	101	23	802	35	1380
13	8.2	65	43	48	58	24	796	66	60	829	37	338
14	8.2	61	50	48	57	24	741	55	56	807	37	495
15	8.7	58	60	47	62	23	741	55	36	812	37	584
16	8.7	56	64	42	57	22	741	56	22	780	41	375
17	650	55	63	41	56	21	780	78	15	802	42	155
18	825	54	59	40	57	20	785	147	14	812	37	141
19	813	51	59	40	60	20	785	110	9.7	790	32	111
20	674	51	61	41	58	18	790	81	7.8	802	63	90
21	225	49	59	45	49	20	796	65	5.6	812	51	79
22	147	48	59	57	48	20	818	55	24	846	29	68
23	715	46	60	62	46	20	802	47	511	812	24	59
24	868	46	59	65	44	21	812	42	640	780	28	66
25	945	46	56	58	42	22	884	38	675	780	30	67
26	956	45	56	65	41	22	956	36	665	790	50	136
27	968	43	58	66	41	22	812	30	680	768	52	251
28	631	43	56	60	41	20	785	27	702	774	54	151
29	233	42	56	58	40	20	802	25	730	812	55	118
30	183	41	55	64	---	22	634	25	719	660	40	100
31	178	---	55	67	---	22	---	25	---	348	24	---
TOTAL	9163.4	2116	1590	1619	1663	789	14785	2612	5780.1	23603	1712	7652.2
MEAN	296	70.5	51.3	52.2	57.3	25.5	493	84.3	193	761	55.2	255
MAX	968	153	64	67	94	37	956	241	730	846	185	2520
MIN	7.3	41	41	40	40	18	17	25	5.6	348	24	9.2
AC-FT	18180	4200	3150	3210	3300	1560	29330	5180	11460	46820	3400	15180
CAL YR 1979 TOTAL	55801.5		MEAN 153	MAX 1610	MIN 7.3	AC-FT 110700						
WTR YR 1980 TOTAL	73084.7		MEAN 200	MAX 2520	MIN 5.6	AC-FT 145000						

08394500 RIO FELIX AT OLD HIGHWAY BRIDGE, NEAR HAGERMAN, NM

LOCATION.--Lat 33°07'30", long 104°20'40", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ 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 mi² (2,410 km²), contributing area.

PERIOD OF RECORD.--April 1939 to current year. March 1932 to April 1939 at site 1 mi (1.6 km) downstream; records for periods of low flow not equivalent, owing to inflow between sites.

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. Diversions for irrigation of about 350 acres (1.4 km²), 1959 determination, above station.

AVERAGE DISCHARGE.--41 years, 14.7 ft³/s (0.416 m³/s), 10,650 acre-ft/yr (13.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 74,000 ft³/s (2,100 m³/s) Oct. 7, 1954, gage height, 27.5 ft (8.38 m), from floodmarks, from rating curve extended above 12,000 ft³/s (340 m³/s) on basis of slope-area measurement at point 5.5 mi (8.8 km) upstream from gage (adjusted for channel storage); no flow for many periods.

Flood in 1954 is the highest since 1894 (information from local residents).

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.--Peak discharges above base of 500 ft³/s (14 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Sept. 15	2000	1,080 30.6	9.02 2.749	Sept. 27	0400	*2,420 68.5	11.50 3.505

No flow most of the time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	8.5	.00	5.0	.05	.00	.00	.00	.00	.00	.00
2	.00	.00	18	.00	5.0	4.8	.00	.00	.00	.00	.00	.00
3	.00	.00	12	.00	3.8	2.5	.00	.00	.00	.00	.00	.00
4	.00	.00	10	.00	2.0	.01	.00	.00	.00	.00	.00	.00
5	.00	.00	5.5	.00	3.9	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	5.1	.00	4.7	.01	.00	.00	.00	.00	.00	.00
7	.00	.00	4.7	.00	4.7	1.7	.00	.00	.00	.00	.00	.00
8	.00	.00	2.1	.00	4.8	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	3.0	.00	5.6	.00	.00	.00	.00	.00	.00	36
10	.00	.00	2.2	.00	5.6	.00	.00	.00	.00	.00	.00	113
11	.00	.00	2.2	.00	5.2	.00	.00	.00	.00	.00	.00	43
12	.00	.00	3.6	.00	5.0	.00	9.5	.00	.00	.00	.00	74
13	.00	.00	4.1	.00	4.8	.00	22	.00	.00	.00	.00	81
14	.00	.00	2.3	.00	5.4	.00	2.5	.00	.00	.00	.00	116
15	.00	.00	.02	.00	5.9	.00	.00	.00	.00	.00	222	253
16	.00	.00	.00	.00	6.1	.00	.00	.00	.00	.00	46	196
17	.00	.00	.00	.00	5.5	.00	.00	.00	.00	.00	.01	89
18	.00	.00	.00	.00	6.3	.00	.00	.00	.00	.00	.00	58
19	.00	.00	.00	.00	5.9	.00	.00	.00	.00	.00	.00	49
20	.00	.00	.00	.00	4.1	.00	.00	.00	.00	.00	4.3	37
21	.00	.00	.00	.00	4.3	.00	.00	.00	.00	.00	1.6	26
22	.00	.00	.00	3.7	4.1	.00	.00	.00	.00	.00	.00	15
23	.00	.00	.00	7.0	5.0	.00	.00	.00	.00	.00	.00	8.8
24	.00	.00	.00	5.2	4.5	.00	.00	.00	.00	.00	.00	7.7
25	.00	.00	.00	5.2	3.8	.00	.00	.00	.00	.00	.00	8.0
26	.00	.00	.00	5.2	.07	.00	.00	.00	.00	.00	.00	26
27	.00	.00	.00	5.2	.00	.00	.00	.00	.00	.00	.00	678
28	.00	.00	.00	5.2	.00	.00	.00	.00	.00	.00	.00	84
29	.00	4.4	.00	5.2	.00	.00	.00	.00	.00	.00	.00	34
30	.00	9.4	.00	5.2	---	.00	.00	.00	.00	.00	.00	21
31	.00	---	.00	5.0	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	13.80	83.32	52.10	121.07	9.07	34.00	.00	.00	.00	273.91	2053.50
MEAN	.000	.46	2.69	1.68	4.17	.29	1.13	.000	.000	.000	8.84	68.5
MAX	.00	9.4	18	7.0	6.3	4.8	22	.00	.00	.00	222	678
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	27	165	103	240	18	67	.00	.00	.00	543	4070
CAL YR 1979	TOTAL	3142.77	MEAN 8.61	MAX 215	MIN .00	AC-FT 6230						
WTR YR 1980	TOTAL	2640.77	MEAN 7.22	MAX 678	MIN .00	AC-FT 5240						

RIO GRANDE BASIN

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 mi² (38,230 km²), approximately (contributing area).

PERIOD OF RECORD.--August 1938 to current year.

GAGE.--Water-stage recorder and rock control. Datum of gage is 3,327.07 ft (1,014.091 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow partly regulated by Lake Sumner (station 08384000). Diversions and ground-water withdrawals for irrigation of about 124,000 acres (500 km²), 1959 determination, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--42 years, 234 ft³/s (6.627 m³/s), 169,500 acre-ft/yr (209 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,600 ft³/s (1,410 m³/s) Sept. 24, 1941, gage height, 21.90 ft (6.675 m), from rating curve extended above 16,100 ft³/s (456 m³/s) on basis of slope-area measurement at gage height 21.77 ft (6.635 m); no flow at times in 1947, 1953-4, 1962, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 30, 1937, reached a stage of 21.77 ft (6.635 m), discharge, 51,500 ft³/s (1,460 m³/s), on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 1,990 ft³/s (56.4 m³/s) Sept. 12, gage height 6.30 ft (1.920 m); minimum 3.2 ft³/s (0.091 m³/s) June 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	163	56	62	82	49	17	378	19	635	214	24
2	20	144	55	63	97	47	18	200	24	612	130	15
3	17	130	56	62	103	49	21	163	16	618	100	10
4	13	131	56	62	94	49	19	137	15	630	66	9.0
5	11	125	59	60	85	45	18	120	16	662	45	6.9
6	13	110	59	60	78	43	20	94	11	674	41	10
7	15	99	60	60	74	41	22	86	9.1	690	68	7.3
8	17	91	58	60	71	39	21	78	7.1	730	61	14
9	16	89	56	58	69	39	20	66	6.4	752	48	49
10	14	85	55	57	64	40	21	58	6.7	767	44	163
11	13	83	54	59	65	38	21	73	6.7	772	46	990
12	13	81	54	58	68	38	21	111	5.0	776	44	1180
13	13	79	59	59	71	35	22	57	6.5	780	51	428
14	13	76	61	58	71	34	21	39	21	782	51	549
15	13	72	65	59	72	34	21	44	21	782	93	540
16	14	70	70	58	73	34	650	50	11	781	208	684
17	73	69	71	52	71	33	685	56	6.2	782	73	432
18	665	69	69	50	73	30	710	110	8.2	782	32	257
19	758	68	67	51	73	29	722	115	7.2	780	31	180
20	751	66	67	53	74	29	742	79	7.0	780	31	145
21	397	65	68	56	69	23	769	58	8.0	782	26	117
22	250	64	66	70	65	18	774	49	8.4	785	51	97
23	509	63	67	70	62	17	785	30	237	793	20	82
24	797	62	66	79	60	14	785	29	506	787	7.6	66
25	834	61	64	76	58	15	791	29	578	774	6.3	62
26	844	61	63	73	56	14	847	28	616	768	8.5	84
27	847	59	63	78	52	15	864	25	634	761	7.2	378
28	746	57	65	77	51	17	801	21	635	759	6.9	325
29	342	56	63	70	50	17	796	22	641	759	10	222
30	237	57	63	71	---	16	760	24	648	689	10	180
31	177	---	62	77	---	24	---	21	---	494	15	---
TOTAL	8466	2505	1917	1958	2051	965	13866	2450	4741.5	22718	1645.5	7306.2
MEAN	273	83.5	61.8	63.2	70.7	31.1	462	79.0	158	733	53.1	244
MAX	847	163	71	79	103	49	864	378	648	793	214	1180
MIN	11	56	54	50	50	14	17	21	5.0	494	6.3	6.9
AC-FT	16790	4970	3800	3880	4070	1910	27500	4860	9400	45060	3260	14490
CAL YR 1979	TOTAL	56828.9	MEAN	156	MAX	1250	MIN	8.9	AC-FT	112700		
WTR YR 1980	TOTAL	70589.2	MEAN	193	MAX	1180	MIN	5.0	AC-FT	140000		

08396500 PECOS RIVER NEAR ARTESIA, NM
(Surveillance program station)

LOCATION.--Lat 32°50'25", long 104°19'23", in NW¼NW¼ sec.18, T.17 S., R.27 E., Eddy County, Hydrologic Unit 13060007, near left bank on downstream end of bridge pier on State Highway 83, 4.3 mi (6.9 km) east of Artesia, 7.0 mi (11.3 km) upstream from Rio Penasco, 17 mi (27.4 km) upstream from McMillan Dam, and at mile 503.9 (810.8 km).
DRAINAGE AREA.--15,300 mi² (39,630 km²), 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. Prior to Aug. 27, 1914, nonrecording gage and Aug. 27, 1914, to Feb. 20, 1936, water-stage recorder at site 6.5 mi (10.5 km) downstream at different datum. Feb. 21, 1936, to Apr. 4, 1941, water-stage recorder at site 600 ft (183 m) downstream at different datum.
REMARKS.--Water-discharge records fair. Flow partly regulated by Lake Sumner (station 08384000) since August 1937. Diversions and ground-water withdrawals for irrigation of about 154,000 acres (620 km²), 1959 determination, above station.
AVERAGE DISCHARGE.--44 years, 250 ft³/s (7.080 m³/s) 181,100 acre-ft/yr (223 hm³/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge probably occurred May 30, 1937, when a discharge of 51,500 ft³/s (1,460 m³/s) was measured by slope-area method at a point 15 mi (24.1 km) upstream, gage height, 14.7 ft (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 ft³/s (2,320 m³/s). The second highest flood occurred July 25, 1905, discharge below Rio Penasco, 50,300 ft³/s (1,420 m³/s), based on gain in storage and spill from Lake McMillan. The floods in August 1893 and October 1904 damaged McMillan Dam and washed out Avalon Dam.
EXTREMES FOR CURRENT YEAR.--Maximum discharge 1,670 ft³/s (47.3 m³/s) Sept. 12, gage height, 9.00 ft (2.743 m) no peak above base of 2,000 ft³/s (57 m³/s); minimum, 3.4 ft³/s (0.096 m³/s) June 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	165	54	62	83	49	25	417	23	583	204	14
2	25	149	54	62	92	48	18	194	22	576	125	21
3	22	137	55	62	104	48	18	173	25	593	99	14
4	19	131	56	62	106	51	22	148	19	593	72	11
5	13	128	56	60	94	48	21	131	17	617	45	9.6
6	12	114	58	59	86	46	20	103	16	641	39	12
7	13	103	59	60	80	45	21	83	11	655	50	11
8	14	93	59	60	71	42	22	83	8.9	718	71	8.9
9	17	87	57	59	72	41	21	71	8.2	740	52	38
10	14	84	55	57	70	41	21	62	7.5	720	49	100
11	13	81	54	56	65	42	21	56	7.5	720	44	240
12	13	78	54	57	68	39	34	105	6.4	715	46	1070
13	13	76	57	57	70	39	468	84	4.9	720	50	497
14	15	75	64	57	72	38	638	51	5.2	715	55	537
15	15	70	62	58	72	37	619	44	16	698	44	564
16	15	69	69	57	72	37	619	53	17	705	217	668
17	15	67	72	56	75	36	641	54	7.5	720	107	415
18	411	66	74	51	75	36	680	64	4.7	718	49	216
19	739	64	70	50	74	34	670	132	4.7	715	27	169
20	780	62	66	50	72	30	672	98	4.7	710	31	140
21	444	59	68	53	74	28	692	64	4.1	725	25	114
22	185	59	68	59	69	25	690	53	4.1	730	35	93
23	314	59	66	74	64	22	718	39	57	750	33	82
24	760	59	66	75	61	19	718	31	419	710	19	68
25	828	57	66	87	58	17	732	30	487	690	12	75
26	873	57	64	84	55	16	808	29	524	700	11	125
27	905	56	64	83	52	14	795	28	540	690	14	248
28	877	55	64	83	51	15	715	27	547	685	12	359
29	393	54	64	83	51	17	735	24	571	730	9.6	235
30	230	55	62	82	---	16	738	24	595	649	11	173
31	174	---	62	82	---	17	---	27	---	534	11	---
TOTAL	8186	2469	1919	1997	2108	1033	12612	2582	3984.4	21165	1668.6	6327.5
MEAN	264	82.3	61.9	64.4	72.7	33.3	420	83.3	133	683	53.8	211
MAX	905	165	74	87	106	51	808	417	595	750	217	1070
MIN	12	54	54	50	51	14	18	24	4.1	534	9.6	8.9
AC-FT	16240	4900	3810	3960	4180	2050	25020	5120	7900	41980	3310	12550
CAL YR 1979	TOTAL	53623.1	MEAN	147	MAX	1170	MIN	3.9	AC-FT	106400		
WTR YR 1980	TOTAL	66051.5	MEAN	180	MAX	1070	MIN	4.1	AC-FT	131000		

RIO GRANDE BASIN
08396500 PECOS RIVER NEAR ARTESIA, NM -- 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: April 1949 to current year.

SUSPENDED SEDIMENT DISCHARGE: January 1949 to current year.

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, 26,000 micromhos Mar. 28; minimum daily, 1,160 micromhos July 24, 26.

WATER TEMPERATURES: Maximum, 33.0°C June 13, 23; minimum, 3.0°C Dec. 2, 16-17.

SEDIMENT CONCENTRATIONS: Maximum daily, 5,950 mg/L Sept. 17; minimum daily, 5 mg/L Mar. 15

SEDIMENT LOADS: Maximum daily, 9,380 tons (8,510 tonnes) Oct. 19; minimum daily, 0.20 ton (0.18 tonne) June 18.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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 12...	0912	13	13800	8.1	24.5	15.5	12	9.0	59	3400	
NOV 09...	0945	87	4050	8.5	15.5	10.5	63	10.2	35	1500	
DEC 05...	0845	56	7300	8.5	16.0	5.0	4.8	--	150	2000	
JAN 18...	1030	51	8700	8.6	19.5	9.0	1.1	13.2	49	2100	
FEB 26...	1000	55	8770	8.4	23.0	11.0	2.8	14.4	72	2400	
MAR 25...	0945	17	14900	8.3	23.5	15.0	5.9	11.6	3400	3300	
APR 30...	0930	738	2170	8.1	31.0	19.0	560	7.0	2	1100	
MAY 27...	1030	28	6250	8.2	31.0	25.0	37	8.2	160	2100	
JUN 24...	1030	419	3600	7.9	39.0	25.5	4000	4.8	180	1600	
JUL 22...	1000	730	1200	8.2	32.0	25.0	420	3.2	32	580	
AUG 26...	1030	11	7200	8.3	34.5	27.0	17	7.2	41	1500	
SEP 29...	1030	235	2800	8.1	23.0	20.0	460	7.4	64	1000	
DATE		HARD- NESS, NONCAR- BONATE (MG/L AS 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 (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)
OCT 12...	3300	500	520	2100	16	22	130	3200	3700	.8	
NOV 09...	1400	420	110	450	5.1	7.6	130	1100	770	.5	
DEC 05...	1900	430	230	1000	9.7	9.5	170	2600	860	.8	
JAN 18...	2000	480	220	1200	11	11	150	1800	2100	.9	
FEB 26...	2300	560	240	1200	11	11	100	1800	2100	.6	
MAR 25...	3100	750	340	2400	18	21	190	2600	4200	.9	
APR 30...	1000	370	49	110	1.4	4.2	96	970	150	.6	
MAY 27...	2000	540	190	1100	10	13	97	1600	1900	.5	
JUN 24...	1500	470	100	320	3.5	9.5	100	1500	480	.9	
JUL 22...	490	190	26	55	1.0	2.9	88	470	74	.7	
AUG 26...	1400	420	110	930	10	13	110	1300	1600	.5	
SEP 29...	--	280	76	380	5.2	9.5	--	720	650	.6	

RIO GRANDE BASIN
08396500 PECOS RIVER NEAR ARTESIA, NM --- Continued
WATER-QUALITY RECORDS

349

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	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 12...	9.0	9990	10100	35	.71	.73	.270	.260	.54
NOV 09...	15	3200	2960	154	.83	.84	.170	.090	.44
DEC 05...	16	5770	5260	17	1.6	1.6	.340	.260	1.5
JAN 18...	11	6210	5920	12	.83	.83	.230	.260	1.8
FEB 26...	14	6070	5990	7	.02	.06	.940	.120	1.2
MAR 25...	7.8	10700	10400	15	.04	.04	.180	.170	1.1
APR 30...	8.4	1810	1720	1250	.09	.10	.140	.110	1.5
MAY 27...	12	5920	5410	81	.00	.00	.200	.220	1.3
JUN 24...	8.0	3090	2950	1670	.32	.19	.380	.400	2.3
JUL 22...	7.1	945	879	224	.01	.05	.010	.000	2.6
AUG 26...	8.8	4730	4450	19	.00	.00	.350	.070	.75
SEP 29...	12	2430	2130	748	.63	.59	.120	.060	2.1

DATE	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHOPH OSPHATE DISSOL. (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- PENDE (MG/L AS C) (00689)
OCT 12...	1.5	.070	.010	990	50	--	--	4.5	.9
NOV 09...	1.4	.070	.010	280	20	--	--	4.8	.6
DEC 05...	3.4	.100	.020	470	60	20	8.5	5.6	1.7
JAN 18...	2.8	.090	.040	490	30	--	--	5.2	--
FEB 26...	2.1	.280	.000	510	70	--	--	9.5	22
MAR 25...	1.3	.110	.040	870	50	440	--	5.4	1.9
APR 30...	1.7	.870	.000	100	110	20	5.3	2.4	.5
MAY 27...	1.5	.090	.000	580	50	--	--	6.6	1.6
JUN 24...	3.0	1.700	.000	310	160	20	50	6.9	.6
JUL 22...	2.6	.670	.010	100	50	--	--	9.4	1.1
AUG 26...	1.1	.030	.000	420	50	--	--	4.8	1.9
SEP 29...	2.8	.590	.030	110	840	--	--	5.3	.6

RIO GRANDE BASIN
08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued
WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
DEC 05...	0845	2	1	400	300	470	0	0	0	10
MAR 25...	0945	--	1	--	200	870	--	1	--	20
APR 30...	0930	3	1	800	400	100	1	0	30	10
JUN 24...	1030	10	1	1000	100	310	0	1	50	10

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)
DEC 05...	3	0	1	2	300	60	6	2	40
MAR 25...	--	0	--	1	--	50	--	1	--
APR 30...	11	0	27	3	19000	110	55	2	930
JUN 24...	18	0	150	44	33000	160	57	4	3600

DATE	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)	SELE- NIUM, TOTAL RECOV- ERABLE (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 05...	20	.1	.0	2	4	0	0	40	60
MAR 25...	440	--	.1	--	2	--	0	--	80
APR 30...	20	.1	.0	0	1	0	0	150	150
JUN 24...	20	.1	.0	2	1	0	0	230	30

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 AS CR) (01029)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)
SEP 29...	1030	0	1	1	2	0	.01

RIO GRANDE BASIN
08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued
WATER-QUALITY RECORDS

351

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

		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)	
SEP 29...	1030	.00	.00	.0	.00	.00	.00	.01	.00	
		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)
SEP 29...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
		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)
SEP 29...	.00	.00	.00	0	.00	.00	.00	.00	.0	.00

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 12...	0912	53	460
NOV 09...	0945	20	85
DEC 05...	0845	1	25
JAN 18...	1030	54	58
FEB 26...	1000	160	800
MAR 25...	0945	7	12
APR 30...	0930	230	1600
MAY 27...	1030	3	12
JUN 24...	1030	14	980
JUL 22...	1000	100	130
AUG 26...	1030	28	28
SEP 29...	1030	2000	5200

RIO GRANDE BASIN
08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued
WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (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										
28...	0810	877	14.0	2470	5850	37	43	--	61	
DEC										
05...	0845	56	5.0	55	8.3	64	69	72	75	
JAN										
18...	1030	51	9.0	26	3.6	--	--	--	--	
FEB										
26...	1000	55	11.0	29	4.3	--	--	--	--	
MAR										
25...	0945	17	15.0	34	1.6	--	--	--	--	
APR										
14...	0910	638	10.0	2440	4200	33	43	--	66	
27...	0900	795	13.0	1830	3930	31	38	--	54	
30...	0930	738	19.0	1950	3890	24	33	--	43	
MAY										
27...	1030	28	25.0	100	7.6	--	--	--	--	
JUN										
24...	1030	419	25.5	4720	5340	38	49	--	73	
26...	1112	524	26.0	2470	3500	35	45	--	65	
JUL										
02...	1600	576	27.0	1280	1990	39	49	--	67	
22...	1000	730	25.0	1990	3920	22	25	--	35	
AUG										
16...	1000	217	27.0	2040	1200	26	42	--	72	
26...	1030	11	27.0	33	.98	--	--	--	--	
SEP										
12...	1300	1070	24.0	2980	8610	35	44	--	57	
18...	1535	216	26.0	3900	2270	64	82	--	98	
29...	1030	235	20.0	945	600	42	51	--	71	
DATE		SED. SUSP. FALL DIAM. % FINER THAN (70341)	SED. SUSP. FALL DIAM. % FINER THAN (70342)	SED. SUSP. FALL DIAM. % FINER THAN (70343)	SED. SUSP. FALL DIAM. % FINER THAN (70344)	SED. SUSP. FALL DIAM. % FINER THAN (70345)	SED. SUSP. SIEVE DIAM. % FINER THAN (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN (70334)
OCT										
28...	--	--	--	--	--	--	95	100	--	--
DEC										
05...	79	--	--	--	--	--	85	90	100	--
JAN										
18...	--	--	--	--	--	--	35	64	97	100
FEB										
26...	--	--	--	--	--	--	41	63	94	100
MAR										
25...	--	--	--	--	--	--	39	72	96	100
APR										
14...	--	95	100	--	--	--	--	--	--	--
27...	--	92	100	--	--	--	--	--	--	--
30...	--	84	95	100	--	--	--	--	--	--
MAY										
27...	--	--	--	--	--	--	76	85	96	100
JUN										
24...	--	90	96	100	--	--	--	--	--	--
26...	--	95	100	--	--	--	--	--	--	--
JUL										
02...	--	--	--	--	--	--	97	100	--	--
22...	--	71	87	96	100	--	--	--	--	--
AUG										
16...	--	--	--	--	--	--	99	100	--	--
26...	--	--	--	--	--	--	85	92	100	--
SEP										
12...	--	82	96	100	--	--	--	--	--	--
18...	--	100	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	87	95	100	--

RIO GRANDE BASIN
08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued
WATER-QUALITY RECORDS

353

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11700	2850	7510	7960	8000	9450	15100	2200	10400	2330	1890	14900
2	11800	2830	7740	7790	7590	9450	12900	2470	11300	2310	2360	11700
3	11100	3000	7670	7960	7110	9720	13200	2700	12000	2280	2740	11600
4	10800	3160	7800	7840	6290	9900	14500	2720	11200	2290	3180	10100
5	10800	3400	7830	7960	6070	9810	13600	3240	11700	2290	3300	10200
6	10200	3470	7920	8070	6250	10100	13100	3420	13700	2290	3490	10900
7	11700	3730	7870	8010	6760	9900	13300	3800	13700	2290	3570	11300
8	14800	3980	7830	8070	7240	10300	12600	4170	13400	2320	3960	13700
9	14900	4030	7770	8130	7320	10400	12200	4520	13600	2300	4020	12400
10	14100	4270	7790	8060	7500	10500	12100	5050	13600	2290	4980	7230
11	13100	4400	7770	8200	7820	10400	12300	5470	14200	2300	5340	3850
12	13500	4510	7890	8260	7770	10500	12400	5530	16700	2290	5370	1460
13	15000	4540	7930	8450	7980	10700	12800	4680	14800	2330	5340	1390
14	15100	4910	7670	8450	8860	10700	3050	4940	18300	2280	6080	1480
15	15000	5210	7690	8320	8230	11100	2470	5120	21500	2270	5870	1900
16	14800	5300	7790	8320	7800	10900	2310	5220	13400	2170	5770	2280
17	14900	5370	7760	8320	7210	11100	2230	5530	12700	2020	2510	1920
18	9080	5960	8070	8520	7470	11700	2200	5830	11500	1860	2830	1870
19	2140	6110	7730	8720	7510	11400	2170	6270	11200	1700	3110	2040
20	1580	6340	7420	8780	7610	11700	2150	4520	12400	1530	4700	2640
21	1690	6470	7260	8790	7750	12100	2130	4640	14500	1240	6520	3450
22	1770	6720	7210	7620	8070	12600	2100	4820	16200	1260	6600	3810
23	1960	6740	7460	7840	7850	13500	2140	5050	18800	1180	5910	4270
24	1910	6980	7720	7960	7830	13900	2140	5560	3560	1160	5840	4900
25	1470	7210	7710	7680	8100	14800	2180	7160	2640	1170	5840	5540
26	1470	7190	7670	7730	8380	15300	2190	7620	2510	1160	6970	3330
27	1470	7320	7510	7900	8570	16400	2200	8080	2330	1280	7650	4540
28	1480	7490	7620	7790	8910	26000	2210	8510	2320	1260	9620	1940
29	1640	7530	7890	7790	8880	15500	2110	9380	2350	1210	11000	3250
30	1930	7540	7970	7660	---	14900	2110	10300	2310	1350	10900	3370
31	2250	---	8080	7790	---	14000	---	10500	---	1390	11200	---
MEAN	8230	5290	7730	8090	7680	12200	6940	5450	11300	1850	5430	5780
WTR YR 1980		MEAN	7160	MAX	26000		MIN	1160				

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	10.0	7.5	5.5	6.0	9.5	11.0	20.0	24.0	26.5	27.0	29.0
2	16.5	11.0	3.0	6.5	4.5	12.0	17.0	21.0	26.5	27.0	25.0	22.5
3	24.5	13.0	6.0	6.5	7.5	7.0	18.0	19.0	29.0	27.0	30.0	29.0
4	27.5	10.0	7.0	5.5	9.5	10.0	19.0	19.5	24.0	27.5	29.0	26.0
5	23.5	10.5	6.0	5.0	9.0	10.5	17.0	24.0	31.0	26.0	24.5	27.0
6	16.0	11.5	9.0	7.0	9.0	13.0	22.0	24.0	29.5	26.5	28.0	24.5
7	25.0	11.0	5.0	5.5	10.5	12.0	18.0	25.5	29.0	27.5	23.5	26.0
8	18.5	11.0	10.0	5.0	8.0	12.0	20.0	26.0	26.0	27.0	30.0	27.0
9	15.0	14.0	9.5	8.0	4.5	15.0	12.5	23.5	26.0	27.5	29.0	24.0
10	14.5	11.5	10.0	5.0	3.5	15.0	20.0	23.0	25.0	27.5	28.0	20.0
11	22.0	13.5	11.5	8.0	4.5	15.0	23.0	22.0	25.0	26.5	26.5	21.0
12	16.0	11.5	7.5	9.0	6.0	13.0	21.5	22.0	28.0	27.0	24.5	21.5
13	15.0	12.5	7.0	10.5	5.0	18.0	20.0	20.0	33.0	27.5	23.0	24.5
14	15.5	11.5	5.0	10.0	8.5	10.0	10.0	19.0	30.0	28.0	26.0	23.0
15	22.0	11.0	4.0	12.5	12.0	14.0	13.0	21.0	28.5	27.5	25.0	24.0
16	24.5	10.0	3.0	9.0	12.0	15.0	15.0	19.0	29.5	28.0	27.0	24.5
17	17.0	7.5	3.0	9.0	6.5	13.5	17.5	16.5	29.0	28.0	25.0	23.0
18	17.0	13.0	3.5	10.0	13.0	13.0	19.0	24.0	31.5	27.5	25.5	26.0
19	16.5	12.0	5.5	11.5	11.0	17.0	16.5	24.0	29.0	26.0	26.0	22.5
20	16.5	10.0	9.0	7.0	11.5	15.0	19.0	28.0	30.0	25.5	25.0	23.0
21	17.0	13.5	7.0	7.5	11.0	16.0	18.0	24.5	28.0	26.5	23.5	27.0
22	13.5	6.5	9.5	6.5	13.0	16.0	18.0	27.0	26.0	26.5	24.5	21.0
23	12.5	5.0	9.0	5.0	11.5	10.0	20.5	26.0	33.0	27.0	28.5	20.5
24	12.5	8.0	11.5	5.0	10.5	13.5	17.5	26.0	28.0	28.5	27.0	22.5
25	13.0	11.0	9.0	7.0	10.0	18.0	16.0	26.0	27.0	26.5	27.0	22.0
26	15.0	8.0	6.5	4.0	10.5	20.0	15.0	27.5	26.0	27.0	25.5	18.0
27	15.5	11.0	8.0	5.0	11.0	18.0	13.0	25.0	26.0	25.0	23.0	18.0
28	14.0	7.0	7.5	5.5	12.0	17.0	19.0	23.5	26.5	26.5	30.5	17.5
29	14.0	4.0	4.5	5.0	13.0	12.0	18.0	27.5	27.0	28.0	27.0	18.5
30	13.5	5.5	5.0	5.0	---	16.0	20.0	27.5	27.5	26.0	29.5	21.5
31	12.0	---	5.0	5.0	---	12.0	---	29.5	---	28.0	31.5	---
MEAN	17.5	10.0	7.0	7.0	9.0	14.0	17.5	23.5	28.0	27.0	26.5	23.0
WTR YR 1980		MEAN	17.5	MAX	33.0		MIN	3.0				

08396500 RIO GRANDE BASIN
PECOS RIVER NEAR ARTESIA, NM -- Continued
WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION	
	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH			
1	58	3.9	398	177	21	3.1	207	35	108	24	13	1.7		
2	29	2.0	310	125	80	12	7	1.2	106	26	10	1.3		
3	35	2.1	237	88	16	2.4	11	1.8	50	14	8	1.0		
4	70	3.6	214	76	20	3.0	43	7.2	76	22	7	.96		
5	47	1.6	198	68	39	5.9	6	.97	70	18	10	1.3		
6	32	1.0	180	55	59	9.2	6	.96	66	15	9	1.1		
7	218	7.7	151	42	73	12	11	1.8	72	16	6	.73		
8	22	.83	98	25	38	6.1	7	1.1	77	15	7	.79		
9	26	1.2	125	29	26	4.0	9	1.4	77	15	6	.66		
10	19	.72	117	27	18	2.7	6	.92	32	6.0	10	1.1		
11	23	.81	125	27	31	4.5	7	1.1	51	9.0	9	1.0		
12	35	1.2	116	24	31	4.5	6	.92	25	4.6	8	.84		
13	56	2.0	100	21	41	6.3	26	4.0	23	4.3	8	.84		
14	24	.97	90	18	116	20	18	2.8	25	4.9	6	.62		
15	30	1.2	86	16	21	3.5	12	1.9	46	8.9	5	.50		
16	36	1.5	159	30	19	3.5	9	1.4	34	6.6	9	.90		
17	23	.93	105	19	21	4.1	15	2.3	24	4.9	10	.97		
18	4360	6320	40	7.1	14	2.8	47	6.5	34	6.9	9	.87		
19	4700	9380	44	7.6	19	3.6	15	2.0	34	6.8	8	.73		
20	2650	5580	38	6.4	28	5.0	17	2.3	57	11	8	.65		
21	2130	2550	36	5.7	19	3.5	11	1.6	28	5.6	11	.83		
22	1510	754	56	8.9	46	8.4	152	24	17	3.2	12	.81		
23	1610	1830	178	28	38	6.8	38	7.6	18	3.1	8	.48		
24	3130	6420	22	3.5	31	5.5	56	11	22	3.6	9	.46		
25	3010	6730	35	5.4	26	4.6	50	12	33	5.2	20	.92		
26	2780	6550	30	4.6	15	2.6	97	22	24	3.6	15	.65		
27	2540	6210	115	17	27	4.7	70	16	18	2.5	15	.57		
28	2330	5520	34	5.0	9	1.6	73	16	22	3.0	12	.49		
29	1360	1440	23	3.4	10	1.7	48	11	14	1.9	16	.73		
30	855	531	16	2.4	11	1.8	99	22	---	---	12	.52		
31	617	290	---	---	30	5.0	58	13	---	---	14	.64		
TOTAL	---	60138.26	---	972.0	---	164.4	---	233.77	---	270.6	---	25.66		
	MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION	
	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER			
1	16	1.1	1160	1370	63	3.9	1600	2520	553	305	40	1.5		
2	19	.92	655	343	56	3.3	1300	2020	248	84	30	1.7		
3	20	.97	513	240	64	4.3	1600	2560	130	35	39	1.5		
4	31	1.8	505	202	49	2.5	3950	6320	125	24	25	.74		
5	28	1.6	612	216	63	2.9	1690	2820	39	4.7	21	.54		
6	43	2.3	271	75	72	3.1	2080	3600	72	7.6	13	.42		
7	40	2.3	45	10	59	1.8	2950	5220	125	17	13	.39		
8	40	2.4	32	7.2	31	.74	1890	3660	99	19	17	.41		
9	29	1.6	19	3.6	36	.80	1700	3400	77	11	447	.75		
10	41	2.3	35	5.9	59	1.2	2650	5150	46	6.1	694	187		
11	42	2.4	35	5.3	61	1.2	1700	3300	46	5.5	395	256		
12	43	3.9	93	26	36	.62	1770	3420	51	6.3	2110	6840		
13	1300	2010	56	13	37	.49	1900	3690	62	8.4	1580	2080		
14	2340	4030	36	5.0	107	1.5	1740	3360	42	6.2	1660	2430		
15	2010	3360	37	4.4	58	2.5	1830	3450	55	6.5	1810	2760		
16	2220	3710	28	4.0	23	1.1	2940	5600	1110	797	3030	5680		
17	1960	3390	30	4.4	20	.41	2160	4200	453	131	5950	6670		
18	2050	3760	34	5.9	16	.20	1690	3280	40	5.3	4220	2460		
19	2010	3640	156	56	22	.28	1610	3110	55	4.0	3310	1510		
20	2000	3630	402	106	35	.44	1800	3450	36	3.0	2470	934		
21	1840	3440	366	63	21	.23	1620	3170	35	2.4	742	228		
22	1800	3350	330	47	19	.21	2410	4750	574	54	435	109		
23	1800	3490	226	24	277	163	1960	3970	137	12	259	57		
24	1880	3640	66	5.5	3550	4020	1590	3050	51	2.6	138	25		
25	1790	3540	45	3.6	2890	3800	1810	3370	57	1.8	162	33		
26	1790	3910	40	3.1	2460	3480	1570	2970	34	1.0	338	114		
27	1800	3860	75	5.7	2010	2930	1650	3070	26	.98	930	1090		
28	1660	3200	51	3.7	1950	2880	1510	2790	36	1.2	1230	1190		
29	1800	3570	46	3.0	2050	3160	1430	2820	22	.57	838	532		
30	1820	3630	49	3.2	1900	3050	1300	2280	24	.71	435	203		
31	---	---	60	4.4	---	---	1430	2110	36	1.1	---	---		
TOTAL	---	63183.59	---	2868.9	---	23516.72	---	108480	---	1564.96	---	35470.20		
TOTAL LOAD FOR YEAR: 296889.06 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 mi² (2,750 km²), 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 fair. Diversions and ground-water withdrawals for irrigation of about 3,000 acres (12 km²), 1959 determination, above station.

AVERAGE DISCHARGE.--29 years, 5.44 ft³/s (0.154 m³/s), 3,940 acre-ft/yr (4.86 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,800 ft³/s (844 m³/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 ft³/s (170 m³/s), on basis of slope-area measurements at gage heights 6.82 ft (2.079 m) and 7.90 ft (2.408 m) at previous site and datum; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of about Sept. 22, 1941, reached a stage of about 9 ft (2.7 m) previous site and datum (from old logs), and peak discharge for station "near Dunken", at river mile 66.8 (107 km), was 70,000 ft³/s (1,980 m³/s), as determined for that station in 1956, from floodmarks and rating curve extended above 36,300 ft³/s (1,030 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge 3,260 ft³/s (92.3 m³/s) at 0915 hours Sept. 15, gage height, 6.50 ft (1.981 m) no other peak above base of 750 ft³/s (21 m³/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
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	83	455
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.8	54
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.1
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	41
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	148
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.6
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	84.80	704.84
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	2.74	23.5
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	83	455
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	168	1400
CAL YR 1979	TOTAL 342.66		MEAN .94	MAX 333	MIN .00	AC-FT 680						
WTR YR 1980	TOTAL 789.64		MEAN 2.16	MAX 455	MIN .00	AC-FT 1570						

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).

WATER-DISCHARGE RECORDS

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.--Water-discharge records poor. Flow partly regulated by Lake Sumner (station 08384000). Diversions and ground-water withdrawals for irrigation of about 170,000 acres (690 km²), 1959 determination, above station. Above about 1,500 ft³/s (42 m³/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.--40 years, 151 ft³/s (4.276 m³/s) 109,400 acre-ft/yr (135 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,920 ft³/s (82.7 m³/s) July 12, 1960; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 900 ft³/s (25.5 m³/s) Sept. 12; no flow for part of each day, June 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	165	56	59	73	45	23	506	16	580	200	8.6
2	18	156	56	59	80	45	23	206	13	560	115	12
3	17	142	55	59	92	45	20	183	14	570	90	13
4	16	131	55	59	99	46	21	158	14	580	80	9.4
5	14	129	54	59	91	45	23	136	12	600	50	7.6
6	12	120	55	58	82	42	22	105	11	620	45	8.4
7	11	112	56	59	77	41	22	85	9.5	640	35	8.6
8	13	98	57	59	71	39	23	80	8.5	700	55	7.1
9	13	91	56	59	70	38	23	70	7.8	710	46	7.1
10	13	90	54	58	68	36	23	61	6.8	710	39	100
11	13	83	54	57	64	38	23	52	4.3	710	37	450
12	12	82	52	57	63	36	26	75	2.8	710	40	900
13	12	78	53	57	66	36	363	88	1.1	710	40	470
14	12	77	59	57	66	35	682	52	2.4	710	42	520
15	12	73	58	57	68	34	596	42	6.8	700	39	560
16	13	70	59	58	67	33	594	42	6.0	700	156	600
17	13	70	63	58	68	33	606	43	5.0	710	61	500
18	250	68	65	55	68	32	651	46	4.0	720	33	238
19	606	67	66	52	68	32	656	98	3.0	720	21	190
20	685	67	63	52	67	27	668	88	3.0	710	21	157
21	426	64	63	53	67	26	695	57	3.0	700	20	133
22	212	63	64	63	63	23	698	45	3.0	700	19	112
23	204	62	62	68	59	21	720	36	50	700	27	98
24	660	62	61	68	57	21	725	25	400	740	17	88
25	792	61	62	73	55	19	730	25	470	700	12	102
26	842	59	61	73	53	19	805	24	530	680	9.2	175
27	855	59	60	70	52	19	818	24	540	690	9.7	186
28	862	57	59	72	49	18	718	23	540	700	12	339
29	372	56	60	74	48	20	742	22	560	710	8.4	264
30	252	56	59	69	---	20	760	20	580	650	8.6	189
31	198	---	59	68	---	19	---	19	---	500	8.9	---
TOTAL	7446	2568	1816	1899	1971	983	12499	2536	3827.0	20840	1396.8	6452.8
MEAN	240	85.6	58.6	61.3	68.0	31.7	417	81.8	128	672	45.1	215
MAX	862	165	66	74	99	46	818	506	580	740	200	900
MIN	11	56	52	52	48	18	20	19	1.1	500	8.4	7.1
AC-FT	14770	5090	3600	3770	3910	1950	24790	5030	7590	41340	2770	12800
OAL YR 1979	TOTAL	52742.0	MEAN	144	MAX	1170	MIN	9.0	AC-FT	104600		
WTR YR 1980	TOTAL	64234.6	MEAN	176	MAX	900	MIN	1.1	AC-FT	127400		

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 mi² (686 km²), 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.--29 years, 3.79 ft³/s (0.107 m³/s) 2,750 acre-ft/yr (3.39 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,300 ft³/s (830 m³/s) Aug. 23, 1966, gage height, 19.9 ft (6.07 m), from floodmarks present datum, from rating curve extended above 5,000 ft³/s (17.0 m³/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, 484 ft³/s (13.7 m³/s) at 1330 hours Sept. 15, gage height, 3.54 ft (1.079 m), no other peak above base of 200 ft³/s (5.7 m³/s); no flow most of the time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
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	70
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	9.3
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14
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	1.5
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	19
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.5
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	101.44
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	3.38
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	70
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	201
CAL YR 1979	TOTAL	1214.21	MEAN	3.33	MAX	998	MIN	.00	AC-FT	2410		
WTR YR 1980	TOTAL	101.44	MEAN	.28	MAX	70	MIN	.00	AC-FT	201		

RIO GRANDE BASIN

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 mi² (44,000 km²), 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, (based on Aug. 1964 survey) 27,300 acre-ft (33.7 hm³) between gage heights 0.0 ft (sill of outlet gate) and 24.9 ft (7.59 m), crest of spillway 2. Flashboards in spillway No. 2 may be used to increase this capacity. Maximum capacity without spill, 33,620 acre-ft (41.5 hm³) at gage height 26.1 ft (7.96 m) crest of spillway 1. No dead storage. No storage allocated to flood control. Figures given herein represent usable contents. Gage heights may be affected by variable drawdown due to flow through gates. Water is used for irrigation by Carlsbad Irrigation District.

COOPERATION.--Gage-height record and capacity table furnished by Carlsbad Irrigation District.

EXTREMES FOR PERIOD OF RECORD (SINCE 1938).--Maximum contents observed, 68,500 acre-ft (84.5 hm³)

Sept. 26, 1941, gage height, 29.95 ft (9.129 m); no storage for periods in 1944-54, 1957, 1964, 1965, 1974, 1976, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 23,440 acre-ft (28.9 hm³) Sept. 30, gage height, 24.10 ft (7.346 m); minimum, 1,370 acre-ft (1.69 hm³) Oct. 14, gage height 16.35 ft (4.983 m).

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	7360	7480	10600	12660	14960	17120	10320	18480	12360	3610	22750	11910
2	7000	---	10600	12820	15130	17120	10040	18680	11760	4020	22520	11460
3	6420	---	10600	12820	15300	16930	9760	18480	11160	4440	22290	11020
4	5740	8330	10740	12980	15480	16930	9370	18480	10600	4860	23180	10740
5	4970	8330	10740	12980	15480	16930	8850	18680	9900	5190	20740	10460
6	4540	8590	10740	12980	15660	16930	8460	18880	9240	5520	20110	10320
7	3910	8720	10880	12980	15660	16930	7960	19080	8850	5960	19480	10180
8	3410	8850	10880	13140	15840	16930	7360	19080	8330	6660	19080	9900
9	2750	8980	10880	13140	16020	16930	6880	19080	8200	7360	18480	9760
10	1520	8980	11020	13140	16020	16930	6200	19080	7960	8080	18280	10600
11	1520	9240	11020	13140	16200	16930	5630	18880	7960	8980	17880	10740
12	1520	9370	11020	13300	16200	16930	5190	18680	7840	9630	17500	11610
13	1440	9370	11160	13300	16200	16740	5190	18480	7480	10460	17500	14280
14	1370	9500	11460	13300	16200	16740	5740	18480	7000	11160	17500	14960
15	1440	9500	11460	13460	16380	16740	6540	18280	6660	11910	17500	16020
16	1440	9500	11610	13460	16380	16740	7120	18280	6310	12510	17500	17120
17	1440	9630	11610	13460	16380	16740	7600	18080	5960	13620	17690	18280
18	1440	9760	11610	13460	16560	16560	8080	18080	5410	14280	17500	19280
19	1980	9900	11760	13620	16740	16560	8720	18080	4970	15130	17120	19900
20	2230	10040	11760	13620	16740	16560	9370	18280	4440	15840	16930	20110
21	3220	10040	11910	13620	16740	16020	9900	18280	3810	16560	16560	20110
22	3120	10180	12060	13620	16740	15130	10600	18080	3220	17310	16200	20320
23	2930	10180	12060	14110	16930	14280	11460	17690	2930	18080	15840	20110
24	2750	10180	12210	14110	16930	13620	12360	16930	2480	18680	15300	19690
25	3310	10320	12360	14280	16930	12980	13140	16380	2750	19280	14790	19480
26	4120	10320	12360	14280	16930	12510	13940	15840	3020	19480	14450	20960
27	4970	10460	12360	14450	16930	11910	14960	15130	3220	19900	13940	21620
28	5850	10460	12510	14620	16930	11310	15840	14620	2930	20530	13620	22290
29	6540	10460	12510	14620	17120	11020	16740	14110	3020	21620	13140	22980
30	7000	10460	12660	14790	---	10880	17690	13620	3220	22290	12660	23440
31	7120	---	12660	14960	---	10600	---	12980	---	22750	12360	---
MAX	7360	---	12660	14960	17120	17120	17690	19080	12360	22750	23180	23440
MIN	1370	---	10600	12660	14960	10600	5190	12980	2480	3610	12360	9760
()	-480	+3340	+2200	+2300	+2160	-6520	+7090	-4710	-9760	+19530	-10390	+11080
CAL YR 1979	MAX	32250	MIN	1370	()	+3900						
WTR YR 1980	MAX	23440	MIN	1370	()	+15840						

() CHANGE IN CONTENTS, IN ACRE-FEET

08400500 LAKE MCHILLAN NEAR LAKEWOOD, NM --- Continued

GAGE HEIGHT (FEET ABOVE DATUM), 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	19.35	19.40	20.60	21.30	22.00	22.60	20.50	22.95	21.20	17.65	23.95	21.05
2	19.20	---	20.60	21.35	22.05	22.60	20.40	23.00	21.00	17.85	23.90	20.90
3	18.95	---	20.60	21.35	22.10	22.55	20.30	22.95	20.80	18.05	23.85	20.75
4	18.65	19.75	20.65	21.40	22.15	22.55	20.15	22.95	20.60	18.25	23.60	20.65
5	18.30	19.75	20.65	21.40	22.15	22.55	19.95	23.00	20.35	18.40	23.50	20.55
6	18.10	19.85	20.65	21.40	22.20	22.55	19.80	23.05	20.10	18.55	23.35	20.50
7	17.80	19.90	20.70	21.40	22.20	22.55	19.60	23.10	19.95	18.75	23.20	20.45
8	17.55	19.95	20.70	21.45	22.25	22.55	19.35	23.10	19.75	19.05	23.10	20.35
9	17.20	20.00	20.70	21.45	22.30	22.55	19.15	23.10	19.70	19.35	22.95	20.30
10	16.45	20.00	20.75	21.45	22.30	22.55	18.85	23.10	19.60	19.65	22.90	20.60
11	16.45	20.10	20.75	21.45	22.35	22.55	18.60	23.05	19.60	20.00	22.80	20.65
12	16.45	20.15	20.75	21.50	22.35	22.55	18.40	23.00	19.55	20.25	22.70	20.95
13	16.40	20.15	20.80	21.50	22.35	22.50	18.40	22.95	19.40	20.55	22.70	21.80
14	16.35	20.20	20.90	21.50	22.35	22.50	18.65	22.95	19.20	20.80	22.70	22.00
15	16.40	20.20	20.90	21.55	22.40	22.50	19.00	22.90	19.05	21.05	22.70	22.30
16	16.40	20.20	20.95	21.55	22.40	22.50	19.25	22.90	18.90	21.25	22.70	22.60
17	16.40	20.25	20.95	21.55	22.40	22.50	19.45	22.85	18.75	21.60	22.75	22.90
18	16.40	20.30	20.95	21.55	22.45	22.45	19.65	22.85	18.50	21.80	22.70	23.15
19	16.75	20.35	21.00	21.60	22.50	22.45	19.90	22.85	18.30	22.05	22.60	23.30
20	16.90	20.40	21.00	21.60	22.50	22.45	20.15	22.90	18.05	22.25	22.55	23.35
21	17.45	20.40	21.05	21.60	22.50	22.30	20.35	22.90	17.75	22.45	22.45	23.35
22	17.40	20.45	21.10	21.60	22.50	22.05	20.60	22.85	17.45	22.65	22.35	23.40
23	17.30	20.45	21.10	21.75	22.55	21.80	20.90	22.75	17.30	22.85	22.25	23.35
24	17.20	20.45	21.15	21.75	22.55	21.60	21.20	22.55	17.05	23.00	22.10	23.25
25	17.50	20.50	21.20	21.80	22.55	21.40	21.45	22.40	17.20	23.15	21.95	23.20
26	17.90	20.50	21.20	21.85	22.55	21.25	21.70	22.25	17.35	23.20	21.85	23.55
27	18.30	20.55	21.20	21.85	22.55	21.05	22.00	22.05	17.45	23.30	21.70	23.70
28	18.70	20.55	21.25	21.90	22.55	20.85	22.25	21.90	17.30	23.45	21.60	23.85
29	19.00	20.55	21.25	21.90	22.60	20.75	22.50	21.75	17.35	23.70	21.45	24.00
30	19.20	20.55	21.30	21.95	---	20.70	22.75	21.60	17.45	23.85	21.30	24.10
31	19.25	---	21.30	22.00	---	20.60	---	21.40	---	23.95	21.20	---
MEAN	17.60	---	20.92	21.59	22.37	22.09	20.17	22.71	18.87	21.05	22.63	22.16
MAX	19.35	---	21.30	22.00	22.60	22.60	22.75	23.10	21.20	23.95	23.95	24.10
MIN	16.35	---	20.60	21.30	22.00	20.60	18.40	21.40	17.05	17.65	21.20	20.30

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 mi² (44,000 km²), approximately (contributing area).

WATER-DISCHARGE RECORDS

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.--Water-discharge records good. Flow regulated by Lake Sumner and Lake McMillan (stations 08384000, 08400500). Diversions and ground-water withdrawals for irrigation of about 171,000 acres (690 km²), 1959 determination, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--35 years (1907, 1940, 1948-80), 97.9 ft³/s (2.773 m³/s), 70,930 acre-ft/yr (87.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,500 ft³/s (467 m³/s) Aug. 23, 1966, includes flow of spillways; no flow for many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 2, 1904, may have reached 60,000 ft³/s (1,700 m³/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 (corrected).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge 475 ft³/s (13.5 m³/s) June 27, maximum gage height, 4.20 ft (1.280 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	.15	.00	.00	.00	.00	98	263	201	276	263	145
2	197	.15	.00	.00	.00	.00	98	263	240	276	260	145
3	275	.12	.00	.00	.00	.00	143	163	240	282	260	145
4	320	.12	.00	.00	.00	.00	213	1.0	244	282	232	121
5	310	.09	.00	.00	.00	.00	202	.71	285	288	170	97
6	210	.09	.00	.00	.00	.00	156	.61	189	294	170	62
7	255	.09	.00	.00	.00	.00	237	.61	137	240	168	62
8	270	.09	.00	.00	.00	.00	240	.61	119	205	145	62
9	370	.09	.00	.00	.00	.00	276	.52	59	205	118	32
10	255	.09	.00	.00	.00	.00	302	15	22	205	116	1.4
11	6.0	.09	.00	.00	.00	.00	308	58	2.9	210	114	1.4
12	1.0	.09	.00	.00	.00	.00	154	58	91	210	52	1.1
13	.50	.09	.00	.00	.00	.00	.94	58	137	210	3.4	1.1
14	.20	.05	.00	.00	.00	.00	39	59	137	213	2.9	1.2
15	.20	.00	.00	.00	.00	.00	168	58	136	213	2.6	1.2
16	.20	.00	.00	.00	.00	.00	222	19	134	213	39	1.1
17	.20	.00	.00	.00	.00	.00	274	.44	134	215	65	1.1
18	.20	.00	.00	.00	.00	.00	276	.44	218	215	98	1.1
19	125	.00	.00	.00	.00	.00	279	.44	237	230	98	1.1
20	260	.00	.00	.00	.00	132	279	27	234	266	100	1.1
21	260	.00	.00	.00	.00	268	279	94	232	266	101	.94
22	260	.00	.00	.00	.00	320	225	105	162	266	113	31
23	265	.00	.00	.00	.00	317	181	190	123	268	143	156
24	320	.00	.00	.00	.00	283	183	199	193	302	143	120
25	330	.00	.00	.00	.00	199	188	199	230	357	136	83
26	335	.00	.00	.00	.00	199	210	199	298	364	139	5.7
27	345	.00	.00	.00	.00	199	252	199	475	320	139	.82
28	345	.00	.00	.00	.00	132	255	199	406	2.2	137	.09
29	305	.00	.00	.00	.00	98	255	196	367	146	137	.09
30	110	.00	.00	.00	---	98	260	196	306	266	137	.09
31	1.0	---	.00	.00	---	98	---	196	---	263	139	---
TOTAL	5861.50	1.40	.00	.00	.00	2343.00	6252.94	3018.38	5988.9	7568.2	3940.9	1281.63
MEAN	189	.047	.000	.000	.000	75.6	208	97.4	200	244	127	42.7
MAX	370	.15	.00	.00	.00	320	308	263	475	364	263	156
MIN	.20	.00	.00	.00	.00	.00	.94	.44	2.9	2.2	2.6	.09
AC-FT	11630	2.8	.00	.00	.00	4650	12400	5990	11880	15010	7820	2540
CAL YR 1979	TOTAL	31108.68	MEAN	85.2	MAX	752	MIN	.00	AC-FT	61700		
WTR YR 1980	TOTAL	36256.85	MEAN	99.1	MAX	475	MIN	.00	AC-FT	71920		

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 mi² (44,030 km²), 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 Sumner and Lake McMillan (stations 08384000, 08400500).

Diversions and ground-water withdrawals for irrigation of about 171,000 acres (690 km²), 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 ft³/s (58.9 m³/s) Oct. 26, 1974; no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge determined 491 ft³/s (13.9 m³/s) June 27; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129	.26	.00	.00	.00	.00	95	266	197	287	256	140
2	187	.00	.00	.00	.00	.00	95	266	240	287	256	140
3	277	.00	.00	.00	.00	.00	141	170	240	287	256	135
4	342	.00	.00	.00	.00	.00	211	20	241	287	230	101
5	276	.00	.00	.00	.00	.00	206	2.0	272	292	170	95
6	209	.00	.00	.00	.00	.00	155	1.0	185	292	166	62
7	256	.00	.00	.00	.00	.00	246	1.0	129	236	162	60
8	273	.00	.00	.00	.00	.00	256	1.0	113	209	154	60
9	414	.00	.00	.00	.00	.00	292	1.0	51	213	115	178
10	259	.00	.00	.00	.00	.00	320	10	23	209	115	2.0
11	.44	.00	.00	.00	.00	.00	331	60	.00	213	115	1.2
12	.00	.00	.00	.00	.00	.00	195	60	75	213	63	.99
13	.00	.00	.00	.00	.00	.00	1.8	60	132	213	20	.99
14	.00	.00	.00	.00	.00	.00	34	60	136	218	3.0	2.3
15	.00	.00	.00	.00	.00	.00	187	60	136	218	3.0	1.2
16	.00	.00	.00	.00	.00	.00	236	20	132	232	3.0	.99
17	.00	.00	.00	.00	.00	.00	287	1.0	132	223	45	.99
18	.00	.00	.00	.00	.00	.00	287	1.0	214	223	100	.99
19	131	.00	.00	.00	.00	.00	292	1.0	246	236	100	.99
20	261	.00	.00	.00	.00	106	292	20	241	266	100	.87
21	261	.00	.00	.00	.00	259	298	100	236	266	100	.87
22	261	.00	.00	.00	.00	320	246	110	174	266	120	23
23	266	.00	.00	.00	.00	320	195	180	129	266	140	187
24	326	.00	.00	.00	.00	289	200	180	199	292	150	147
25	337	.00	.00	.00	.00	200	200	200	251	372	140	131
26	342	.00	.00	.00	.00	195	213	200	303	372	140	25
27	348	.00	.00	.00	.00	195	261	200	491	357	140	3.4
28	348	.00	.00	.00	.00	135	261	200	434	4.9	140	1.2
29	320	.00	.00	.00	.00	92	266	200	384	124	140	.11
30	141	.00	.00	.00	---	92	266	200	331	261	140	.00
31	.75	---	.00	.00	---	95	---	200	---	261	140	---
TOTAL	5965.19	.26	.00	.00	.00	2298.00	6565.8	3071.0	6067.00	7695.9	3922.0	1503.09
MEAN	192	.009	.000	.000	.000	74.1	219	99.1	202	248	127	50.1
MAX	414	.26	.00	.00	.00	320	331	266	491	372	256	187
MIN	.00	.00	.00	.00	.00	.00	1.8	1.0	.00	4.9	3.0	.00
AC-FT	11830	.5	.00	.00	.00	4560	13020	6090	12030	15260	7780	2980
CAL YR 1979	TOTAL	30755.03	MEAN	84.3	MAX	824	MIN	.00	AC-FT	61000		
WTR YR 1980	TOTAL	37088.24	MEAN	101	MAX	491	MIN	.00	AC-FT	73560		

08401200 SOUTH SEVEN RIVERS NEAR LAKEWOOD, NM

LOCATION.--Lat 32°35'19", long 104°25'17", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ 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 mi² (570 km²), approximately.

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

GAGE.--Water-stage recorder. Altitude of gage is 3,276 ft (999 m), from topographic map. Prior to July 8, 1965, at site 400 ft (120 m) upstream at datum 0.57 ft (0.174 m) higher.

REMARKS.--Records poor. No surface diversions above station, ground-water withdrawals for 240 acres (97.1 hm²), above station.

AVERAGE DISCHARGE.--17 years, 4.63 ft³/s (0.131 m³/s), 3,350 acre-ft/yr (4.13 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,500 ft³/s (722 m³/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 ft³/s (161 m³/s) on basis of slope-area measurements at gage heights 18.15 ft (5.532 m) and 20.0 ft (6.10 m); no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1941, about 30,000 ft³/s (850 m³/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 ft³/s (161 m³/s) on basis of slope-area measurement at gage height 21.8 ft (6.64 m). Probable date of flood, Oct. 7, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 225 ft³/s (6.37 m³/s) Sept. 14, gage height, 6.46 ft (1.969 m) no peak above base of 450 ft³/s (13 m³/s); no flow most of the time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
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	3.9
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	27
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	6.8
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	17
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	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	54.70
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.82
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	27
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	108
CAL YR 1979	TOTAL	0.00	MEAN	.000	MAX	.00	MIN	.00	AC-FT	.00		
WTR YR 1980	TOTAL	54.70	MEAN	.15	MAX	27	MIN	.00	AC-FT	108		

08401500 PECOS RIVER BELOW MAJOR JOHNSON SPRINGS NEAR CARLSBAD, NM

LOCATION.--Lat 32°31'54", long 104°22'40", in SW1/4NW1/4 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 mi² (45,710 km²), approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1971 to current year (operated as a low-flow station only). Records for January 1947 to September 1950 at site 0.5 mi (0.8 km) upstream not equivalent owing to spring inflow between sites.
GAGE.--Water-stage recorder. Datum of gage is 3,198.44 ft (974.885 m) National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).
REMARKS.--Water-discharge records good. Flow regulated by Lake Sumner and Lake McMillan (stations 08384000, 08400500). Diversions and ground-water withdrawal for irrigation of about 173,000 acres (700 km²), 1959 determination, above station. Several observations of water temperature were made during the year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge determined 3,120 ft³/s (88.4 m³/s), Sept. 25, 1974; minimum 7.0 ft³/s (0.198 m³/s) July 20, 1977.
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge determined 465 ft³/s (13.2 m³/s) Oct. 9; minimum daily, 29 ft³/s (0.821 m³/s) Mar. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	178	34	33	33	33	33	129	290	230	296	298	184
2	241	33	33	33	33	33	129	280	280	298	298	182
3	339	33	33	33	33	33	165	230	280	304	298	180
4	412	33	33	33	33	33	228	70	293	304	270	162
5	334	33	33	33	34	33	243	40	322	301	214	141
6	260	32	32	32	35	32	170	37	247	301	217	99
7	310	32	32	32	36	32	260	36	180	262	217	90
8	324	33	32	32	35	32	265	35	170	229	209	89
9	465	33	32	32	36	32	298	33	94	231	165	450
10	320	33	32	33	36	32	325	32	70	231	165	60
11	44	33	32	33	36	31	341	45	36	234	165	40
12	39	33	33	33	36	31	237	80	93	236	126	40
13	38	33	33	33	36	31	37	78	167	239	48	35
14	36	33	33	33	35	31	36	78	167	241	46	50
15	35	33	33	33	35	31	200	80	165	244	45	40
16	33	33	33	34	35	31	237	75	165	254	67	40
17	33	33	32	35	33	30	296	35	163	252	110	40
18	33	33	32	35	33	29	296	34	225	252	149	40
19	136	33	32	35	33	29	301	32	257	260	151	40
20	293	33	33	35	32	127	307	30	257	293	147	40
21	296	33	33	35	31	296	307	100	254	296	147	40
22	298	33	32	36	31	353	273	120	205	301	158	40
23	312	33	32	35	31	349	217	190	153	301	191	200
24	372	33	32	34	32	331	217	220	205	325	191	150
25	378	33	32	34	32	239	224	220	254	398	189	140
26	382	33	32	33	31	236	231	220	302	398	189	70
27	388	33	32	33	32	231	276	220	490	381	189	52
28	392	33	33	33	33	176	281	220	458	51	186	46
29	360	33	33	33	33	134	284	220	392	143	184	46
30	201	33	33	33	---	132	290	220	344	301	184	46
31	36	---	33	33	---	132	---	220	---	301	182	---
TOTAL	7318	989	1008	1037	974	3335	7100	3820	6918	8458	5395	2872
MEAN	236	33.0	32.5	33.5	33.6	108	237	123	231	273	174	95.7
MAX	465	34	33	36	36	353	341	290	490	398	298	450
MIN	33	32	32	32	31	29	36	30	36	51	45	35
AC-FT	14520	1960	2000	2060	1930	6610	14080	7580	13720	16780	10700	5700
CAL YR 1979	TOTAL	46088	MEAN	126	MAX	809	MIN	32	AC-FT	91420		
WTR YR 1980	TOTAL	49224	MEAN	134	MAX	490	MIN	29	AC-FT	97640		

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 km²), 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 hm²), above station.
 AVERAGE DISCHARGE.--17 years, 8.98 ft³/s (0.254 m³/s) 6,510 acre-ft/yr (8.03 hm³/yr).
 EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,600 ft³/s (895 m³/s) Aug. 23, 1966, gage height, 15.35 ft (4.679 m), from rating curve extended above 8,500 ft³/s (156 m³/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 ft³/s (1,800 m³/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, 2,560 ft³/s (72.5 m³/s) at 0400 hours Sept. 26, gage height 8.14 ft (2.481 m), no other peak above base of 1,000 ft³/s (28 m³/s); no flow most of the time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
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	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	709.88
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23.7
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	618
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	1410

CAL YR 1979 TOTAL 1495.20 MEAN 4.10 MAX 962 MIN .00 AC-FT 2970
 WTR YR 1980 TOTAL 709.88 MEAN 1.94 MAX 618 MIN .00 AC-FT 1410

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 mi² (46,570 km²), 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 good. Flow regulated by Lake Sumner and Lake McMillan (stations 08384000, 08400500). Diversions and ground-water withdrawals for irrigation of about 173,000 acres (700 km²), 1959 determination, above station. Discharge represents inflow to Lake Avalon. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--37 years (1940, 1945-80), 159 ft³/s (4,503 m³/s), 115,200 acre-ft/yr (142 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 69,000 ft³/s (1,950 m³/s) Aug. 23, 1966, gage height, 21.32 ft (6.194 m), present datum, from floodmark, from rating curve extended above 25,000 ft³/s (708 m³/s) on basis of slope-area measurement at gage height 19.53 ft (5.953 m) present datum; minimum, 4.3 ft³/s (0.12 m³/s) Aug. 5, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Peaks which probably exceeded 40,000 ft³/s (1,130 m³/s) occurred in August 1893, Oct. 2, 1904, July 25, 1905, Apr. 17, 1915, Aug. 7, 1916, and May 30, 1937, based primarily on records for station "at Carlsbad." Peak of May 22, 1941, was estimated at 60,000 ft³/s (1,700 m³/s).

Floods of 1893 and 1904 originated above McMillan Dam and contributed to the two failures of Avalon Dam.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,700 ft³/s (48 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Sept. 9	1300	3,430 97.1	7.07 2.155
Sept. 26	0745	4,030 114	7.61 2.319

Minimum discharge, 19 ft³/s (0.538 m³/s) Feb. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	158	36	33	30	32	30	123	283	223	298	302	180
2	205	36	33	30	32	30	121	285	267	297	302	182
3	284	36	32	30	32	32	153	240	269	300	302	177
4	357	35	32	30	32	28	217	52	267	298	296	166
5	326	34	29	30	32	31	253	36	299	300	220	142
6	228	34	29	27	33	32	166	37	251	302	219	102
7	275	34	28	28	32	28	259	37	172	272	217	85
8	277	33	28	29	32	30	266	34	164	231	216	85
9	424	34	27	29	34	30	305	33	95	231	170	691
10	317	34	25	27	33	30	322	32	77	231	166	53
11	42	33	24	28	33	28	343	66	38	234	164	36
12	36	33	24	30	34	29	244	84	68	234	144	35
13	34	33	25	31	33	30	54	82	160	235	52	34
14	34	33	26	30	32	30	33	83	162	239	48	49
15	34	32	25	29	30	29	182	85	161	241	47	37
16	33	32	25	30	30	28	230	78	162	247	57	34
17	31	32	25	30	31	29	304	37	160	251	99	35
18	29	32	26	30	29	29	305	35	209	250	141	36
19	87	32	26	30	28	28	303	35	260	251	149	36
20	262	32	27	30	25	77	307	34	258	293	149	36
21	262	31	27	29	28	264	312	104	254	298	148	37
22	272	31	28	34	30	343	285	121	220	301	149	37
23	280	31	30	30	30	337	218	189	154	305	184	170
24	346	31	30	30	31	326	214	230	189	317	188	185
25	354	31	30	30	32	231	222	231	246	400	188	275
26	361	30	30	30	32	231	223	230	291	404	189	1180
27	368	31	30	29	31	225	275	231	457	406	190	97
28	372	32	30	31	31	187	278	231	467	108	190	44
29	351	33	30	31	31	128	282	230	391	106	188	43
30	270	33	30	31	---	127	282	228	356	294	188	43
31	39	---	30	32	---	119	---	225	---	300	185	---
TOTAL	6718	984	874	925	905	3156	7081	3938	6747	8474	5447	4342
MEAN	217	32.8	28.2	29.8	31.2	102	236	127	225	273	176	145
MAX	424	36	33	34	34	343	343	285	467	406	302	1180
MIN	29	30	24	27	25	28	33	32	38	106	47	34
AC-FT	13330	1950	1730	1830	1800	6260	14050	7810	13380	16810	10800	8610

CAL YR 1979	TOTAL	46140	MEAN 126	MAX 1010	MIN 24	AC-FT 91520
WTR YR 1980	TOTAL	49591	MEAN 135	MAX 1180	MIN 24	AC-FT 98360

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 good. Carlsbad main canal diverts water from Lake Avalon for irrigation of about 25,000 acres (100 km²) in the Carlsbad Irrigation District. About 1,600 acres (6.5 km²) are irrigated, on the left bank, most of it above gaging station 08405200. The remaining acreage (most of which is downstream from station 08405200) is on the right bank.

AVERAGE DISCHARGE.--41 years, 104 ft³/s (2.945 m³/s), 75,350 acre-ft/yr (92.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 526 ft³/s (14.9 m³/s) Sept. 15, 16, 1946; no flow many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	178	.00	.00	.00	.00	.00	142	218	245	304	209	154
2	213	.00	.00	.00	.00	.00	137	203	278	290	198	171
3	290	.00	.00	.00	.00	.00	171	160	278	261	184	156
4	328	.00	.00	.00	.00	.00	189	105	286	220	203	135
5	302	.00	.00	.00	.00	.00	175	92	282	213	224	152
6	280	.00	.00	.00	.00	.00	156	84	209	189	254	139
7	258	.00	.00	.00	.00	.00	226	47	171	191	258	131
8	298	.00	.00	.00	.00	.00	286	51	132	216	253	104
9	302	.00	.00	.00	.00	.00	322	51	69	230	202	44
10	270	.00	.00	.00	.00	.00	347	54	36	245	137	.00
11	292	.00	.00	.00	.00	.00	345	67	43	260	142	.00
12	110	.00	.00	.00	.00	.00	165	69	98	218	86	12
13	28	.00	.00	.00	.00	.00	57	82	93	198	67	38
14	25	.00	.00	.00	.00	.00	92	71	99	236	69	49
15	27	.00	.00	.00	.00	.00	181	63	102	222	67	49
16	25	.00	.00	.00	.00	.00	247	38	146	209	84	44
17	16	.00	.00	.00	.00	78	272	34	207	258	107	72
18	.00	.00	.00	.00	.00	175	282	37	239	280	137	132
19	.00	.00	.00	.00	.00	258	268	46	216	268	156	132
20	.00	.00	.00	.00	.00	310	239	65	209	256	147	137
21	106	.00	.00	.00	.00	312	258	100	224	284	139	144
22	310	.00	.00	.00	.00	310	280	118	189	294	142	164
23	370	.00	.00	.00	.00	264	288	189	220	290	147	132
24	379	.00	.00	.00	.00	254	254	182	254	288	124	147
25	379	.00	.00	.00	.00	260	249	134	274	292	178	123
26	379	.00	.00	.00	.00	222	234	166	310	290	193	24
27	366	.00	.00	.00	.00	216	251	222	349	243	205	.40
28	324	.00	.00	.00	.00	202	251	268	362	237	191	.20
29	320	20	.00	.00	.00	168	237	282	326	251	156	.20
30	245	19	.00	.00	---	132	226	302	314	245	134	.00
31	152	---	.00	.00	---	154	---	272	---	211	132	---
TOTAL	6572.00	39.00	.00	.00	.00	3315.00	6827	3872	6260	7689	4925	2585.80
MEAN	212	1.30	.000	.000	.000	107	228	125	209	248	159	86.2
MAX	379	20	.00	.00	.00	312	347	302	362	304	258	171
MIN	.00	.00	.00	.00	.00	.00	57	34	36	189	67	.00
AC-FT	13040	77	.00	.00	.00	6580	13540	7680	12420	15250	9770	5130
CAL YR 1979	TOTAL	37083.00	MEAN	102	MAX	379	MIN	.00	AC-FT	73550		
WTR YR 1980	TOTAL	42084.80	MEAN	115	MAX	379	MIN	.00	AC-FT	83480		

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 mi² (46,800 km²), 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 (based on Aug. 1964 survey), 4,970 acre-ft (6.1 hm³) between gage heights 0.0 (sill of outlet gates) and 20.4 ft (6.22 m), crest of spillway 2. No dead storage. No storage allocated to flood control. Figures given herein represent usable contents. Water is used by Carlsbad Irrigation District.
 COOPERATION.--Capacity table based on data furnished by Carlsbad Irrigation District.
 EXTREMES FOR PERIOD OF RECORD (SINCE 1938).--Maximum contents, 11,000 acre-ft (13.6 hm³) May 22, 1941, gage height, 25.0 ft (7.62 m); no storage at times when natural flow was passing through reservoir.
 EXTREMES FOR CURRENT YEAR.--Maximum contents, 4,880 acre-ft (6.02 hm³) Sept. 28-30, gage height, 20.30 ft (6.187 m); minimum, 144 acre-ft (178,000 m³) June 27, gage height, 13.20 ft (4.023 m).

 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	1010	1410	---	3250	---	3690	1700	1190	900	1010	1280	1250
2	900	---	---	---	---	3690	1610	1280	872	955	1480	1250
3	845	---	---	---	---	3690	1540	1480	845	955	1640	1250
4	818	---	---	---	3650	3690	1480	1580	818	1010	1840	1320
5	872	---	---	---	---	3730	1510	1410	791	1130	1910	1320
6	845	1670	2620	---	---	3730	1610	1250	872	1280	1770	1250
7	791	---	---	3290	3650	3730	1540	1190	900	1480	1700	1130
8	791	---	---	---	3650	3730	1510	1100	900	1510	1580	1070
9	818	---	---	---	3690	3730	1440	1010	1010	1480	1440	1010
10	1040	---	2780	---	3730	3730	1320	955	955	1410	1380	2620
11	1040	---	---	---	3730	3730	1190	845	1010	1320	1380	2620
12	---	1910	---	---	3730	3730	1190	900	928	1220	1440	2620
13	---	---	---	---	3770	3690	1380	900	900	1250	1510	2620
14	---	---	2850	---	3730	3690	1320	900	982	1250	1440	2620
15	---	---	---	---	3730	3690	1160	900	1070	1190	1380	2620
16	---	---	---	3410	3730	3690	1130	955	1160	1250	1250	2550
17	---	---	---	---	3730	3690	1130	982	1130	1220	1130	2480
18	406	---	---	---	3730	3400	1130	1010	955	1130	1100	2300
19	494	---	---	---	3770	2930	1130	1010	900	1070	1070	2050
20	845	---	---	---	3770	2480	1190	900	982	1010	1010	1840
21	1320	2260	3050	---	3770	2050	1320	845	1010	1070	1040	1580
22	1540	---	---	3410	3730	1980	1380	872	1100	1070	1010	1320
23	1440	---	---	---	3730	1980	1280	872	1070	1040	1010	1070
24	1350	---	---	---	3730	2120	1070	872	845	1040	1100	1190
25	1280	2400	---	3570	3730	2150	1130	1010	738	1070	1190	1250
26	1280	---	---	---	3730	2120	982	1190	636	1250	1160	2620
27	1320	---	---	---	3730	2080	955	1280	144	1440	1130	4840
28	1350	---	---	---	3730	1980	955	1280	818	1670	1070	4880
29	1510	2550	3210	---	3730	2010	1010	1220	928	1280	1040	4880
30	1640	2580	---	---	---	1910	1070	1100	1010	1010	1130	4880
31	1440	---	3250	3610	---	1840	---	955	---	1130	1190	---
MAX	1640	---	---	---	---	3730	1700	1580	1160	1670	1910	4880
MIN	---	---	---	---	---	1840	955	845	144	955	1010	1010
()	+430	+1140	+670	+360	+120	-1890	-770	-115	+55	+120	+60	+3690
CAL YR 1979	()	-1630										
WTR YR 1980	()	+3870										

() CHANGE IN CONTENTS, IN ACRE-FEET

NOTE.--CONTENTS ESTIMATED FOR NOV. 30, 1979 AND JAN. 31, 1980.

GAGE HEIGHT (FEET ABOVE DATUM), 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	15.20	15.85	---	18.40	---	18.95	16.30	15.50	15.00	15.20	15.65	15.60
2	15.00	---	---	---	---	18.95	16.15	15.65	14.95	15.10	15.95	15.60
3	14.90	---	---	---	---	18.95	16.05	15.95	14.90	15.10	16.20	15.60
4	14.85	---	---	---	18.90	18.95	15.95	16.10	14.85	15.20	16.50	15.70
5	14.95	---	---	---	---	19.00	16.00	15.85	14.80	15.40	16.60	15.70
6	14.90	16.25	17.60	---	---	19.00	16.15	15.60	14.95	15.65	16.40	15.60
7	14.80	---	---	18.45	18.90	19.00	16.05	15.50	15.00	15.95	16.30	15.40
8	14.80	---	---	---	18.90	19.00	16.00	15.35	15.00	16.00	16.10	15.30
9	14.85	---	---	---	18.95	19.00	15.90	15.20	15.20	15.95	15.90	15.20
10	15.25	---	17.80	---	19.00	19.00	15.70	15.10	15.10	15.85	15.80	17.60
11	15.25	---	---	---	19.00	19.00	15.50	14.90	15.20	15.70	15.80	17.60
12	---	16.60	---	---	19.00	19.00	15.50	15.00	15.05	15.55	15.90	17.60
13	---	---	---	---	19.05	18.95	15.80	15.00	15.00	15.60	16.00	17.60
14	---	---	17.90	---	19.00	18.95	15.70	15.00	15.15	15.60	15.90	17.60
15	---	---	---	---	19.00	18.95	15.45	15.00	15.30	15.50	15.80	17.60
16	---	---	---	18.60	19.00	18.95	15.40	15.10	15.45	15.60	15.60	17.50
17	---	---	---	---	19.00	18.95	15.40	15.15	15.40	15.55	15.40	17.40
18	14.00	---	---	---	19.00	18.60	15.40	15.20	15.10	15.40	15.35	17.15
19	14.20	---	---	---	19.05	18.00	15.40	15.20	15.00	15.30	15.30	16.80
20	14.90	---	---	---	19.05	17.40	15.50	15.00	15.15	15.20	15.20	16.50
21	15.70	17.10	18.15	---	19.05	16.80	15.70	14.90	15.20	15.30	15.25	16.10
22	16.05	---	---	18.60	19.00	16.70	15.80	14.95	15.35	15.30	15.20	15.70
23	15.90	---	---	---	19.00	16.70	15.65	14.95	15.30	15.25	15.20	15.30
24	15.75	---	---	---	19.00	16.90	15.30	14.95	14.90	15.25	15.35	15.50
25	15.65	17.30	---	18.80	19.00	16.95	15.40	15.20	14.70	15.30	15.50	15.60
26	15.65	---	---	---	19.00	16.90	15.15	15.50	14.50	15.60	15.45	17.60
27	15.70	---	---	---	19.00	16.85	15.10	15.65	13.20	15.90	15.40	20.25
28	15.75	---	---	---	19.00	16.70	15.10	15.65	14.85	16.25	15.30	20.30
29	16.00	17.50	18.35	---	19.00	16.75	15.20	15.55	15.05	15.65	15.25	20.30
30	16.20	---	---	---	---	16.60	15.30	15.35	15.20	15.20	15.40	20.30
31	15.90	---	18.40	---	---	16.50	---	15.10	---	15.40	15.50	---
MEAN	---	---	---	---	---	18.09	15.63	15.29	14.99	15.51	15.69	16.92
MAX	---	---	---	---	---	19.00	16.30	16.10	15.45	16.25	16.60	20.30
MIN	---	---	---	---	---	16.50	15.10	14.90	13.20	15.10	15.20	15.20

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 mi² (46,830 km²), approximately (contributing area).

PERIOD OF RECORD.--January 1906 to March 1907, (published as "at Avalon"), June 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,130 ft (954 m), from topographic map. January 1906 to March 1907 nonrecording gage at site 0.5 mi (0.8 km) upstream at different datum.

REMARKS.--Records good. Flow regulated by Lake Sumner, Lake McMillan, and Lake Avalon (stations 08384000, 09400500, 08403800). Diversions and ground-water withdrawals above station for irrigation of about 198,000 acres (800 km²), 1959 determination. Station bypassed by Carlsbad main canal (station 08403500).

AVERAGE DISCHARGE.--29 years 32.9 ft³/s (0.932 m³/s), 23,840 acre-ft/yr (29.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,500 ft³/s (1,570 m³/s) Aug. 23, 1966, gage height, 26.4 ft (8.05 m), from floodmarks, from rating curve extended above 33,000 ft³/s (935 m³/s) on basis of computation of peak flow over Tansill Dam 5.8 mi (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 ft³/s (2,550 m³/s) and is probably the greatest flood since 1842. A major flood occurred 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 ft³/s (1,980 m³/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 ft³/s (1,980 m³/s) at site 6.5 mi (10.5 km) downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44 ft³/s (1.25 m³/s) Sept. 26, gage height, 4.38 ft (1.335 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
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	13
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.16
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	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	13.16
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.44
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.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	.00	.00	26
CAL YR 1979	TOTAL	2032.39	MEAN 5.57	MAX 661	MIN .00	AC-FT 4030						
WTR YR 1980	TOTAL	13.16	MEAN .036	MAX 13	MIN .00	AC-FT 26						

RIO GRANDE BASIN
08405000 PECOS RIVER AT CARLSBAD, NM

LOCATION.--Lat 32°24'42", long 104°13'17", in SE¼NE¼ 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 mi² (46,900 km²), 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.

HARDNESS: May 1905 to April 1907, May 1937 to September 1946, July 1951 to current year.

DISSOLVED SOLIDS: May 1905 to April 1907, May 1937 to September 1946, 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.

HARDNESS: Maximum, 2,400 mg/L July 1-31, 1974; minimum, 190 mg/L Sept. 26, 1978.

DISSOLVED SOLIDS: Maximum, 4,680 mg/L July 1-31, 1974; minimum, 252 mg/L Sept. 26, 1978.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 4,530 micromhos Aug. 27; minimum daily, 1,010 micromhos Sept. 26.

WATER TEMPERATURES: Maximum, 32.0°C July 26, Aug. 2; minimum, 5.0°C Jan. 31.

HARDNESS: Maximum, 1,700 mg/L Aug. 1-31; minimum, 290 mg/L Sept. 26.

DISSOLVED SOLIDS: Maximum, 3,400 mg/L Aug. 1-31; minimum, 581 mg/L Sept. 26.

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM- FLOW (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	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)	ALKA- LINITY (MG/L AS CACO3) (00410)
OCT											
01-19	25	3710	7.8	1600	1400	410	130	380	4.2	4.9	160
20-31	28	3730	7.9	1400	1300	350	130	370	4.3	5.6	120
NOV											
01-30	25	3640	7.8	1400	1300	350	130	340	3.9	5.0	140
DEC											
01-31	24	3500	7.9	1300	1200	340	120	320	3.8	5.0	160
JAN											
01-31	21	3270	8.1	1300	1200	320	110	270	3.3	4.8	98
FEB											
01-29	25	3330	7.8	1300	1200	350	110	270	3.2	4.9	140
MAR											
01-31	22	3040	7.8	1300	1200	340	110	260	3.1	5.1	140
APR											
01-30	20	3510	7.8	1300	1200	350	110	340	4.1	5.4	140
MAY											
01-31	4.1	3730	7.9	1400	1300	350	120	360	4.2	4.7	110
JUN											
01-30	13	3610	8.1	1300	1200	330	120	340	4.1	6.2	98
JUL											
01-31	4.1	4030	8.3	1600	1500	380	150	410	4.5	5.8	110
AUG											
01-31	6.7	4430	8.5	1700	1600	410	160	500	5.3	6.4	43
SEP											
01-09	9.5	4180	8.4	1400	1300	330	140	410	4.8	5.8	56
10-14	23	3240	8.4	1200	1100	290	110	310	3.9	5.0	53
15-25	17	3060	8.3	980	930	230	99	280	3.9	4.7	51
26...	660	1010	8.2	290	250	73	27	80	2.0	2.2	44
27...	68	2320	8.8	680	650	160	68	210	3.5	4.3	32
28-30	70	1680	8.4	500	440	120	48	140	2.7	3.6	55
WTD. AVG.	--	3200	8.0	1220	1120	312	108	295	3.6	4.8	115
TIME WTD.											
AVG.	20	3590	8.0	1380	1270	347	123	341	4.0	5.3	115
TOT. LOAD (TONS)	--	--	--	--	--	6010	2090	5680	--	93	2220

08405000 PECOS RIVER AT CARLSBAD, NM

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	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)
OCT											
01-19	1200	600	.7	17	2860	2840	3.86	192	--	230	40
20-31	1200	540	.7	16	2800	2680	3.64	203	--	230	50
NOV											
01-30	1200	520	.8	16	--	2650	3.60	179	1.2	--	--
DEC											
01-31	1200	500	.7	16	--	2600	3.54	168	1.2	--	--
JAN											
01-31	950	470	.7	10	--	2200	2.99	125	.63	--	--
FEB											
01-29	960	470	.8	15	--	2270	3.09	153	1.1	--	--
MAR											
01-31	990	480	.8	16	--	2290	3.11	136	1.1	--	--
APR											
01-30	1100	550	.8	8.6	--	2550	3.47	138	.96	--	--
MAY											
01-31	1200	640	.8	9.7	2860	2750	3.74	30.4	--	210	40
JUN											
01-30	1100	620	.7	11	--	2590	3.52	93.0	1.0	--	--
JUL											
01-31	1300	700	.8	19	--	3040	4.13	33.7	.81	--	--
AUG											
01-31	1500	780	.8	15	--	3400	4.62	61.5	.06	--	--
SEP											
01-09	1300	640	.7	12	3240	2870	3.90	73.6	--	300	20
10-14	1100	510	.6	5.6	2410	2360	3.21	147	--	200	30
15-25	870	460	.6	5.0	2160	1980	2.69	90.9	--	180	10
26...	260	110	.2	1.8	--	581	.79	1040	--	40	<10
27...	700	280	.4	--	--	--	--	2760	--	120	<10
28-30	470	210	.3	1.0	1100	1030	1.40	195	--	100	<10
WTD. AVG.	1010	482	.7	12	--	2300	3.13	--	--	--	--
TIME WTD.											
AVG.	1140	566	.7	13	--	2610	3.55	--	--	--	--
TOT. LOAD (TONS)	19400	9290	13	232	--	44000	--	--	--	--	--

RIO GRANDE BASIN
08405000 PECOS RIVER AT CARLSBAD, NM

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3750	3690	3580	3370	3270	3380	3260	3800	3600	3840	4330	4490
2	3790	3670	3630	3320	3290	3380	3320	3860	3630	3850	4330	4490
3	3780	3660	3630	3310	3310	3370	3360	3880	3630	3850	4310	4470
4	3790	3660	3630	3320	3340	3400	3390	3640	3620	3870	4350	4450
5	3780	3660	3630	3420	3340	3370	3420	3740	3620	3880	4310	4430
6	3770	3690	3620	3410	3310	3380	3450	3810	3620	3880	4330	3420
7	3750	3690	3620	3280	3320	3380	3580	3810	3620	3900	4330	3760
8	3730	3690	3580	3320	3300	3390	3650	3850	3650	3910	4420	3830
9	3720	3700	3570	3390	3300	3390	3660	3870	3460	3930	4400	3900
10	3660	3700	3560	3420	3250	3380	3530	3900	3410	3950	4420	3110
11	3710	3700	3570	3410	3270	3410	3750	3910	3430	3950	4480	3220
12	3700	3700	3570	3380	3300	3400	3460	3910	3470	3960	4400	3410
13	3700	3700	3530	3380	3300	3400	3380	3910	3540	3990	4330	3460
14	3690	3700	3370	3310	3310	3410	3390	3860	3550	3990	4330	2870
15	3690	3660	3370	3350	3320	3390	3510	3850	3550	4010	4350	2510
16	3700	3620	3470	3310	3320	3410	3550	3820	3610	4010	4390	2950
17	3730	3670	3460	3250	3300	3380	3540	3790	3660	4020	4420	2950
18	3720	3670	3450	3220	3320	3370	3540	3760	3650	4020	4400	3030
19	3730	3670	3460	3220	3320	3370	3550	3730	3710	4040	4420	3060
20	3890	3670	3470	3310	3320	3370	3530	3730	3750	4070	4460	3050
21	3760	3630	3500	3280	3350	3370	3520	3720	3720	4140	4500	3060
22	3750	3630	3470	3080	3350	3370	3540	3690	3730	4160	4480	3100
23	3770	3630	3460	2900	3330	3360	3540	3660	3750	4160	4480	3090
24	3770	3620	3460	3110	3330	3350	3550	3690	3770	4170	4480	3120
25	3900	3600	3490	3190	3340	3380	3600	3670	3760	4210	4510	3070
26	3750	3600	3450	3190	3330	3310	3660	3680	3800	4240	4500	1010
27	3730	3600	3450	3140	3360	3280	3700	3650	3790	4240	4530	2320
28	3720	3600	3450	3110	3360	3280	3710	3650	3790	4260	4500	1640
29	3720	3600	3460	3190	3360	3280	3740	3620	3800	4280	4500	1790
30	3710	3600	3460	3280	---	3260	3790	3630	3870	4300	4500	1440
31	3700	---	3430	3250	---	3260	---	3620	---	4350	4500	---
MEAN	3740	3660	3510	3270	3320	3360	3540	3760	3650	4050	4420	3150
WTR YR 1980		MEAN	3620	MAX	4530	MIN	1010					

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	13.5	7.5	9.0	5.5	11.0	12.5	19.0	24.5	26.0	25.0	25.0
2	21.5	13.5	9.0	9.0	5.5	10.0	14.0	19.0	22.5	26.0	32.0	25.0
3	20.5	12.5	7.0	9.0	9.0	9.0	14.0	19.0	23.5	25.0	31.0	24.0
4	20.5	14.0	8.5	9.0	8.0	11.0	14.0	19.5	24.0	27.0	26.0	24.0
5	19.5	13.0	9.5	9.0	9.5	10.0	14.5	20.0	25.5	28.5	29.0	24.0
6	19.0	13.5	9.0	9.5	9.0	10.0	16.0	20.0	25.0	28.0	25.0	24.0
7	21.0	13.0	9.0	7.5	10.0	11.5	16.0	21.0	27.0	26.0	26.0	25.5
8	22.5	13.0	9.0	7.5	8.5	12.0	13.5	21.0	25.0	26.0	25.0	25.0
9	18.5	13.0	10.0	8.0	5.5	12.5	12.5	20.5	25.0	30.0	25.5	25.0
10	18.0	13.0	9.5	7.5	10.0	12.5	15.0	20.5	24.0	29.5	29.0	24.0
11	18.0	12.5	10.0	9.0	9.5	13.0	14.5	19.5	24.0	26.5	24.0	24.0
12	18.0	11.5	9.0	8.0	10.5	12.0	14.0	19.0	24.5	27.0	23.0	23.5
13	18.0	11.0	9.5	10.0	7.0	12.5	12.5	18.5	25.0	30.0	24.0	25.0
14	18.0	10.0	7.5	10.0	8.5	11.0	12.0	19.5	25.0	27.5	24.5	26.0
15	18.5	10.5	8.0	10.0	12.0	12.5	14.5	19.0	25.0	27.5	25.0	25.0
16	18.0	10.5	7.5	10.0	9.0	15.0	15.0	19.0	26.5	26.5	27.0	26.0
17	18.5	10.5	7.5	10.0	8.5	10.0	17.0	19.5	25.5	25.0	26.0	24.5
18	18.5	14.0	8.0	10.5	8.5	11.0	17.5	21.0	26.0	26.5	25.0	24.5
19	18.5	13.0	7.5	11.0	9.5	11.0	18.0	20.0	26.0	30.0	25.5	25.0
20	17.5	13.0	7.5	9.0	10.0	10.5	20.5	20.0	26.0	26.5	29.0	25.0
21	19.0	11.0	10.0	9.0	10.5	11.0	19.0	21.5	26.0	26.0	27.0	26.0
22	17.5	10.0	10.0	8.5	10.5	12.5	19.5	21.5	28.0	29.0	25.0	24.0
23	16.5	9.5	11.0	8.5	12.5	13.0	20.0	22.5	26.0	26.0	24.0	23.0
24	15.5	9.0	9.0	7.5	14.0	12.5	19.0	22.0	26.0	26.0	29.0	23.0
25	15.5	12.5	8.5	7.5	14.0	12.5	17.5	21.5	25.5	30.0	25.0	23.0
26	18.5	10.0	10.0	8.0	11.0	12.5	16.0	21.0	28.0	32.0	25.0	18.0
27	15.5	10.0	10.0	7.0	11.5	14.0	18.5	22.0	25.0	26.0	24.0	20.0
28	17.5	10.0	9.5	6.0	14.0	12.5	17.5	22.5	25.0	28.0	24.0	20.0
29	16.0	8.0	9.0	6.0	13.5	12.0	18.0	24.0	25.0	26.0	24.5	20.0
30	14.0	8.5	10.0	6.0	---	14.5	19.0	23.0	25.0	26.0	25.0	20.0
31	14.0	---	9.0	5.0	---	13.5	---	24.0	---	26.0	25.0	---
MEAN	18.0	11.5	9.0	8.5	10.0	12.0	16.0	20.5	25.5	27.5	26.0	23.5
WTR YR 1980		MEAN	17.5	MAX	32.0	MIN	5.0					

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 mi² (1,170 km²), 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 km²), 1973 determination, and for municipal supply for Carlsbad.

AVERAGE DISCHARGE.--7 years, 10.4 ft³/s (0.295 m³/s), 7,530 acre-ft/yr (9.28 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,000 ft³/s (765 m³/s) Sept. 26, 1980, gage height, 12.10 ft (3.688 m) from rating curve extended above 7,100 ft³/s (200 m³/s); no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Aug. 23, 1966, reached a discharge of 66,000 ft³/s (1,870 m³/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, 27,000 ft³/s (765 m³/s) at 0900 hours Sept. 26, gage height, 12.10 ft (3.688 m) from rating curve extended above 7,100 ft³/s (200 m³/s) no other peak above base of 500 ft³/s (14 m³/s); no flow most of the time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
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	159
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	167
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	82
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	177
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8750
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	458
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	95
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	34
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	9922.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	331
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8750
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	19680

CAL YR 1979 TOTAL 422.40 MEAN 1.16 MAX 227 MIN .00 AC-FT 838
WTR YR 1980 TOTAL 9922.00 MEAN 27.1 MAX 8750 MIN .00 AC-FT 19680

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 mi² (48,040 km²), 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 good. Flow regulated by Lake Sumner, Lake McMillan, and Lake Avalon (stations 08384000, 08400500, 08403800), and at low stages by power plant above station. Gage is bypassed on left bank by Carlsbad main canal east which irrigates several hundred acres adjacent to and below gage site, and on right bank by Carlsbad main canal south, which with supplemental ground-water withdrawals irrigates about 23,000 acres (93 km²) below. Diversions and ground-water withdrawals above station for irrigation of about 198,000 acres (800 km²), 1959 determination.

AVERAGE DISCHARGE.--10 years, 52.8 ft³/s (1.495 m³/s), 38,250 acre-ft/yr (47.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,200 ft³/s (799 m³/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, 28,200 ft³/s (799 m³/s) Sept. 26, gage height, 14.60 ft (4.450 m); minimum, 0.31 ft³/s (0.009 m³/s) Aug. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	26	21	24	20	21	17	18	14	6.8	.17	8.4
2	19	24	21	26	20	24	21	19	14	5.5	.29	8.6
3	24	24	21	24	19	25	21	26	18	4.4	.73	8.2
4	24	25	21	27	18	24	21	21	15	4.7	1.6	6.9
5	25	26	25	27	18	21	21	20	14	4.6	1.5	6.9
6	24	28	24	27	25	23	64	21	13	5.9	2.0	33
7	24	28	24	24	35	22	75	21	13	6.4	.97	12
8	26	30	22	24	30	20	.65	21	27	7.4	2.0	10
9	28	28	24	25	25	21	.58	20	15	5.6	3.4	353
10	25	26	24	26	24	20	.58	20	18	5.3	3.2	40
11	26	28	24	25	28	24	.47	20	16	5.6	3.5	16
12	30	26	24	22	28	19	26	20	16	4.9	8.7	16
13	25	28	30	19	28	18	19	19	14	4.8	8.3	16
14	26	25	26	20	28	19	21	20	14	4.0	9.1	29
15	26	24	24	19	26	19	21	21	14	4.1	10	29
16	25	24	24	18	25	20	25	19	14	4.5	10	18
17	25	24	22	18	25	16	22	19	13	3.2	8.9	17
18	25	25	24	18	28	17	23	17	10	2.8	8.1	17
19	25	24	25	18	24	21	22	17	11	2.5	8.0	17
20	25	24	24	18	26	18	22	17	9.5	3.2	15	17
21	25	22	25	18	26	20	24	17	11	6.4	13	17
22	21	22	25	18	28	25	25	17	13	4.0	11	17
23	28	24	24	18	28	25	25	17	16	4.1	5.2	14
24	30	22	24	18	26	23	21	15	15	4.8	8.1	17
25	30	24	24	18	26	26	22	16	15	5.3	8.5	138
26	30	24	25	18	28	26	17	16	8.9	2.9	11	9410
27	30	22	25	18	26	26	18	15	6.9	1.9	6.9	778
28	28	22	24	18	24	26	18	17	5.4	1.9	11	96
29	30	21	24	18	26	23	19	17	4.8	1.1	9.9	64
30	30	21	25	20	---	23	18	16	5.9	.52	10	51
31	30	---	24	20	---	26	---	15	---	.32	8.9	---
TOTAL	807	741	743	651	738	681	650.28	574	394.4	129.44	208.96	11281.0
MEAN	26.0	24.7	24.0	21.0	25.4	22.0	21.7	18.5	13.1	4.18	6.74	376
MAX	30	30	30	27	35	26	75	26	27	7.4	15	9410
MIN	18	21	21	18	18	16	.47	15	4.8	.32	.17	6.9
AC-FT	1600	1470	1470	1290	1460	1350	1290	1140	782	257	414	22380
CAL YR 1979	TOTAL	13012.20	MEAN	35.6	MAX	592	MIN	.11	AC-FT	25810		
WTR YR 1980	TOTAL	17599.08	MEAN	48.1	MAX	9410	MIN	.17	AC-FT	34910		

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

REMARKS.--Samples collected at this station for comparison with those collected at 08405000 Pecos River at Carlsbad, N. Mex.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)
NOV					
07...	1100	28	3850	7.8	16.0
DEC					
05...	1130	25	3670	7.7	10.0
JAN					
09...	1545	25	3440	7.7	9.5
FEB					
06...	1000	18	3390	7.8	9.5
APR					
01...	1250	17	3380	7.7	15.0
MAY					
02...	1450	19	3850	7.8	27.0
SEP					
27...	1200	--	520	7.8	--

RIO GRANDE BASIN

08405500 BLACK RIVER ABOVE MALAGA, NM

LOCATION.--Lat 32°13'44", long 104°09'02", in SW¼SW¼ 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 mi² (888 km²).

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 Cipolletti 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 km²), 1959 determination, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--33 years (1948-80), 133 ft³/s (0.377 m³/s), 9,640 acre-ft/yr (11.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 74,600 ft³/s (2,110 m³/s) Aug. 23, 1966, gage height, 21.7 ft (6.61 m), from floodmarks, from rating curve extended above 6,000 ft³/s (170 m³/s) on basis of slope-area measurements at gage heights 12.60 and 21.7 ft (3.840 and 6.61 m); minimum, 0.73 ft³/s (0.021 m³/s) June 25, 1969. The flood of Aug. 23, 1966, exceeded the previous maximum stage which occurred in 1908 by about 1.0 ft (0.30 m), information from local resident.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 20 or 21, 1941, reached a stage of 19.0 ft (5.79 m) determined in 1947 from well defined flood marks, discharge, 33,000 ft³/s (935 m³/s), from rating curve extended above 1,400 ft³/s (39.6 m³/s) on basis of slope-area measurements at gage heights 8.41 and 12.60 ft (2.563 and 3.840 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,150 ft³/s (60.9 m³/s) Sept. 26 at 1000 hours, gage height, 5.20 ft (1.585 m), no other peaks above base of 450 ft³/s (13 m³/s); minimum, 1.8 ft³/s (0.051 m³/s) Sept. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	4.8	6.6	13	15	4.5	5.4	9.5	5.4	6.6	6.2	4.0
2	4.5	3.8	6.6	13	15	4.3	7.2	9.5	7.6	6.6	6.2	5.4
3	4.3	4.0	6.6	13	15	4.3	7.6	11	8.3	6.6	6.2	6.2
4	4.3	4.0	6.6	13	15	4.5	8.0	12	8.3	6.6	6.6	9.1
5	4.0	4.3	6.6	13	14	4.3	8.0	11	8.3	7.2	8.3	7.2
6	2.8	4.3	6.6	13	14	4.3	8.3	10	7.6	6.6	7.0	6.6
7	2.4	4.3	6.9	13	14	4.3	8.3	10	7.6	6.6	6.2	6.6
8	2.2	4.8	6.9	14	14	4.3	8.3	9.9	7.6	6.2	6.2	6.2
9	2.2	4.8	6.9	14	14	4.3	8.0	9.5	8.3	6.2	6.6	16
10	2.0	4.8	6.9	14	14	4.3	7.6	8.7	9.1	6.2	6.9	14
11	2.0	4.8	7.2	14	14	4.5	7.6	8.7	9.1	6.2	6.2	8.0
12	2.0	4.8	8.0	14	14	4.5	9.9	8.7	9.1	6.2	9.9	7.6
13	2.0	4.8	11	14	14	4.5	11	8.7	9.1	6.6	9.1	7.2
14	2.0	4.8	12	14	14	4.5	9.5	8.7	9.1	6.9	7.6	6.9
15	2.0	4.8	12	14	14	4.5	9.1	19	8.7	6.6	7.2	5.9
16	2.0	5.1	12	14	14	4.5	9.1	12	8.7	6.9	6.6	4.3
17	2.0	5.4	12	14	14	4.3	8.3	10	8.7	6.9	6.2	3.1
18	2.0	5.6	12	14	14	4.0	8.3	10	11	6.6	6.2	2.6
19	2.0	5.6	12	14	14	4.0	8.7	11	14	6.6	7.2	2.4
20	2.0	5.6	12	14	14	3.8	8.7	11	7.6	6.6	9.1	2.2
21	1.8	5.6	12	14	13	3.8	8.7	10	7.6	7.2	6.9	2.2
22	1.8	5.6	12	16	13	3.8	9.5	10	7.6	8.3	6.9	2.4
23	1.8	5.6	12	15	12	3.5	9.5	9.9	7.2	9.1	6.6	2.4
24	1.8	5.9	12	15	6.6	3.8	9.5	9.5	6.9	8.3	6.2	2.4
25	1.8	6.2	12	15	5.4	4.3	9.5	9.5	6.9	7.2	6.2	3.0
26	2.2	6.2	12	15	5.4	4.0	9.9	9.5	6.9	6.9	6.2	659
27	2.2	6.6	12	14	4.8	3.5	9.5	9.5	6.9	6.9	6.2	58
28	2.2	6.6	13	14	4.5	3.5	9.9	7.2	6.9	6.9	6.2	18
29	2.4	6.6	13	14	4.5	3.3	9.9	4.8	6.6	6.9	6.2	9.5
30	3.3	6.6	13	15	---	3.3	9.9	3.5	6.6	6.6	5.6	4.5
31	3.3	---	13	15	---	3.5	---	3.3	---	6.2	4.0	---
TOTAL	78.7	156.7	313.4	435	353.2	126.8	262.7	295.6	243.3	212.0	208.9	892.9
MEAN	2.54	5.22	10.1	14.0	12.2	4.09	8.76	9.54	8.11	6.84	6.74	29.8
MAX	5.4	6.6	13	16	15	4.5	11	19	14	9.1	9.9	659
MIN	1.8	3.8	6.6	13	4.5	3.3	5.4	3.3	5.4	6.2	4.0	2.2
AC-FT	156	311	622	863	701	252	521	586	483	421	414	1770
CAL YR 1979	TOTAL	3421.4	MEAN 9.37	MAX 54	MIN 1.8	AC-FT 6790						
WTR YR 1980	TOTAL	3579.2	MEAN 9.78	MAX 659	MIN 1.8	AC-FT 7100						

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 mi² (49,700 km²), 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 storage in Lake Sumner, Lake McMillan, and Lake Avalon (stations 08384000, 08400500, 08403800), and by small diversion dams that divert for power or irrigation. Diversions and ground-water withdrawals above station for irrigation of about 202,000 acres (820 km²), 1959 determination. Harroun canal bypasses gage on left bank and irrigates approximately 1,000 acres (4.0 km²) adjacent to and below gage. This bypass is not gaged.

AVERAGE DISCHARGE.--16 years (1921-36), 274 ft³/s (7.760 m³/s), 198,500 acre-ft/yr (245 hm³/yr), prior to completion of Lake Sumner; 44 years (1938-80) 179 ft³/s (5.069 m³/s), 129,700 acre-ft/yr (160 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 120,000 ft³/s (3,400 m³/s) Aug. 23, 1966, gage height, 42.1 ft (12.83 m), from floodmarks, from rating curve extended above 36,000 ft³/s (1,020 m³/s), on basis of slope-area measurement at gage height 42.1 ft (12.83 m); minimum, 3.7 ft³/s (0.10 m³/s) Oct. 20, 1976. The flood of Aug. 23, 1966, exceeded all floods at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in 1904, discharge not determined. Flood of Aug. 7, 1916, reached a discharge of 70,000 ft³/s (1,980 m³/s) at Carlsbad, 27 mi (43.4 km) upstream. Flood in September 1919 reached a stage of 29.4 ft (8.96 m), present datum, discharge, 40,400 ft³/s (1,140 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 26,400 ft³/s (748 m³/s) Sept. 26, gage height, 25.71 ft (7.836 m), no other peaks above base of 1,800 ft³/s (51 m³/s); minimum daily, 10 ft³/s (0.28 m³/s) June 17, 27, Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	53	54	64	60	45	30	26	23	16	13	13
2	41	43	54	65	72	43	36	26	21	14	14	13
3	37	44	54	65	71	43	29	31	21	13	12	19
4	48	43	57	64	70	42	27	43	29	11	12	18
5	63	44	58	64	69	43	27	46	25	12	16	17
6	66	46	58	64	68	44	28	39	20	28	14	17
7	43	48	58	65	67	35	28	38	18	19	10	25
8	48	50	58	64	66	34	66	33	17	16	11	17
9	57	57	58	64	66	34	57	32	27	15	11	41
10	49	59	58	64	67	32	32	28	30	13	11	121
11	49	57	59	65	66	32	26	29	23	12	16	157
12	49	58	61	66	66	31	34	32	20	14	22	79
13	48	59	70	64	67	29	50	39	18	15	24	52
14	40	57	74	65	66	29	27	44	16	14	20	40
15	41	55	73	65	68	27	26	133	16	15	18	36
16	43	56	66	64	68	26	28	89	14	13	15	52
17	43	56	63	64	66	25	27	52	10	11	15	59
18	43	56	63	64	67	22	28	42	12	12	16	46
19	42	57	64	63	69	23	29	38	36	12	18	38
20	37	57	66	65	63	23	36	40	31	12	16	45
21	34	55	66	65	59	23	30	38	20	11	20	43
22	31	55	66	64	56	25	33	36	17	12	17	39
23	35	53	66	66	50	27	31	34	16	16	15	36
24	36	55	65	66	52	28	30	33	15	15	15	36
25	41	56	64	56	52	33	28	41	13	14	15	262
26	35	56	64	54	50	30	26	40	11	12	14	9070
27	34	56	65	54	49	35	26	34	10	14	15	1230
28	63	51	65	54	48	36	26	30	11	13	18	450
29	65	50	65	53	47	48	26	27	14	12	17	280
30	63	52	64	54	---	39	30	35	16	12	15	190
31	79	---	65	56	---	33	---	29	---	13	16	---
TOTAL	1444	1594	1941	1930	1805	1019	957	1257	570	431	481	12541
MEAN	46.6	53.1	62.6	62.3	62.2	32.9	31.9	40.5	19.0	13.9	15.5	418
MAX	79	59	74	66	72	48	66	133	36	28	24	9070
MIN	31	43	54	53	47	22	26	26	10	11	10	13
AC-FT	2860	3160	3850	3830	3580	2020	1900	2490	1130	855	954	24880
CAL YR 1979	TOTAL	19103	MEAN 52.3	MAX 382	MIN 11	AC-FT 37890						
WTR YR 1980	TOTAL	25970	MEAN 71.0	MAX 9070	MIN 10	AC-FT 51510						

RIO GRANDE BASIN
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.

HARDNESS: July 1937 to current year.

DISSOLVED SOLIDS: July 1937 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, 1980.

WATER TEMPERATURES: Maximum, 34.0°C June 25, 1964; minimum, 3.0°C Jan. 13, 1963.

HARDNESS: Maximum, 3,110 mg/L June 7, 1966; minimum, 120 mg/L Sept. 27, 1980.

DISSOLVED SOLIDS: Maximum, 18,700 mg/L June 7, 1966; minimum, 219 mg/L Sept. 27, 1978.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 10,200 micromhos July 23; minimum daily, 409 micromhos Sept. 27.

WATER TEMPERATURES: Maximum, 31.5°C July 8, 15; minimum, 6.0°C Jan. 31, Feb. 1.

HARDNESS: Maximum, 2,500 mg/L July 1-31, Aug. 1-31; minimum, 120 mg/L Sept. 27.

DISSOLVED SOLIDS: Maximum, 6,610 mg/L Aug. 1-31; minimum, 219 mg/L Sept. 27.

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM- FLOW (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	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)	ALKA- LINITY (MG/L AS CACO3) (00410)
OCT											
01-31	47	6750	7.9	2100	1900	520	190	730	7.0	18	140
NOV											
01-30	53	6860	7.7	2000	1900	470	200	800	7.8	18	140
DEC											
01-31	63	6210	7.5	2000	1800	480	190	690	6.7	15	140
JAN											
01-31	62	5840	8.1	1900	1800	480	170	650	6.5	13	140
FEB											
01-29	62	5460	7.8	1800	1700	460	170	630	6.4	13	130
MAR											
01-31	33	6740	7.4	2100	2000	510	200	750	7.1	20	120
APR											
01-30	32	7080	8.0	2200	2100	540	210	950	8.8	19	100
MAY											
01-14	35	6960	7.7	2100	2000	520	190	820	7.8	18	120
15-16	111	4630	7.7	1600	1500	410	130	460	5.1	11	97
17-31	37	6770	7.7	2000	1900	500	190	780	7.5	18	130
JUN											
01-30	20	7570	8.1	2200	2000	550	190	960	9.0	36	110
JUL											
01-31	14	8600	7.6	2500	2400	630	220	1200	10	29	90
AUG											
01-31	16	9020	8.1	2500	2400	630	230	1300	11	45	130
SEP											
01-25	53	7390	9.2	1900	1900	440	200	950	9.4	15	34
26...	9070	1610	8.2	500	440	130	42	120	2.3	4.8	62
27...	1230	409	9.7	120	91	30	11	24	1.0	2.8	29
28...	450	1270	9.4	260	240	60	27	130	3.5	4.6	20
29...	280	2060	9.7	440	420	100	47	220	4.5	6.4	21
30...	190	2650	9.9	580	560	130	63	300	5.4	8.1	25
WTD. AVG.	--	4420	8.2	1340	1250	332	125	498	5.3	12	92
TIME WTD.											
AVG.	71	6950	7.9	2080	1970	513	194	856	8.0	21	117
TOT. LOAD (TONS)	--	--	--	--	--	23400	8780	35000	--	867	6500

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	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)
OCT											
01-31	1700	1300	.9	14	---	4570	6.22	580	1.8	---	---
NOV											
01-30	1800	1400	.8	12	---	4790	6.51	685	2.1	---	---
DEC											
01-31	1600	1200	.7	11	---	4280	5.82	728	2.3	---	---
JAN											
01-31	1500	1100	.8	7.7	---	4010	5.45	671	1.9	---	---
FEB											
01-29	1500	1100	.9	8.9	---	3970	5.40	665	2.1	---	---
MAR											
01-31	1600	1500	.8	9.8	5170	4660	6.34	415	---	470	60
APR											
01-30	1700	1700	.8	4.2	---	5190	7.06	448	.85	---	---
MAY											
01-14	1600	1500	1.0	7.4	---	4740	6.45	448	1.7	---	---
15-16	1200	870	.8	6.0	---	3150	4.28	944	1.8	---	---
17-31	1600	1500	.9	8.2	---	4680	6.36	468	1.6	---	---
JUN											
01-30	1700	1800	.9	9.1	---	5320	7.24	287	1.6	---	---
JUL											
01-31	2100	2100	1.0	13	---	6360	8.65	240	2.1	---	---
AUG											
01-31	2100	2200	1.0	16	---	6610	8.99	286	2.1	---	---
SEP											
01-25	1800	1600	.6	5.6	5380	5030	6.84	720	---	480	90
26...	420	190	.3	23	---	967	1.32	23700	---	70	<10
27...	88	41	.1	5.1	---	219	.30	727	---	10	10
28...	260	230	.2	4.8	---	729	.99	886	---	50	10
29...	400	400	.2	4.5	---	1190	1.62	900	---	90	30
30...	480	520	.3	4.1	---	1520	2.07	780	---	120	60
WTD. AVG.	1110	874	.6	14	---	3020	4.11	---	1.9	---	---
TIME WTD.											
AVG.	1700	1520	.8	10.0	---	4900	6.66	---	1.9	---	---
TOT. LOAD (TONS)	77900	61500	41	974	---	213000	---	---	64	---	---

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)
OCT								
11...	0925	47	5050	8.0	22.5	18.0	5.2	8.3
NOV								
08...	1255	49	6950	8.1	27.0	12.5	5.8	10.6
DEC								
04...	1255	57	6650	8.0	20.0	8.5	2.8	---
JAN								
17...	1250	64	5090	8.3	22.0	12.5	12	15.4
FEB								
27...	1330	49	6100	8.8	26.0	15.0	15	18.0
MAR								
26...	1300	33	7200	8.4	27.0	18.0	4.4	10.7
APR								
29...	1300	26	7860	8.1	37.5	24.0	13	9.7
MAY								
28...	1330	30	6600	8.3	36.0	28.0	8.0	11.2
JUN								
25...	1300	13	8200	8.5	41.0	30.0	22	11.8
JUL								
23...	1230	16	10200	8.3	35.0	29.5	6.8	12.4
AUG								
27...	1300	15	8000	8.3	30.0	27.0	25	11.0
SEP								
24...	1530	35	7700	8.7	35.0	27.0	15	9.4

RIO GRANDE BASIN
08406500 PECOS RIVER NEAR MALAGA, NM -- Continued
WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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, ORTHOPH OSPHATE DISSOL. (MG/L AS P) (00671)
OCT 11...	1.1	1.1	.110	.83	2.0	.030	.010
NOV 08...	1.5	1.5	.170	1.2	2.9	.040	.010
DEC 04...	1.8	1.5	.270	1.0	3.1	.030	.010
JAN 17...	1.4	1.4	.150	1.7	3.2	.130	.010
FEB 27...	.59	.68	.270	1.7	2.6	.190	.000
MAR 26...	1.1	1.1	.330	1.5	2.9	.110	.010
APR 29...	.56	.59	.270	1.1	2.0	.070	.000
MAY 28...	.08	.84	--	--	--	.020	.000
JUN 25...	.28	.30	.110	1.7	2.1	.090	.000
JUL 23...	.78	.70	.000	1.7	2.5	.080	.000
AUG 27...	.90	1.1	--	--	--	.060	.000
SEP 24...	1.4	.00	.100	1.4	2.9	.060	.010

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6500	6160	6410	5600	6070	6080	6610	7440	7150	7890	8640	8890
2	6500	6770	6410	5570	6100	6110	6380	7500	7630	8070	8490	9210
3	6710	6950	6350	5570	5710	5960	6920	7280	7740	8340	8560	9770
4	6850	6900	6320	5570	5240	6200	6970	7230	7860	8610	8630	9050
5	6110	7040	6350	5600	5370	6210	7180	6600	7630	9450	8860	8850
6	5510	7090	6350	5570	5320	6200	7130	6690	7690	8630	9620	8900
7	6110	7090	6340	5520	5360	6250	7130	6430	7800	8080	9620	8450
8	6540	7040	6370	5580	5060	6520	7150	6640	7570	7980	9530	8170
9	6180	7040	6320	5550	5170	6670	6350	6790	8110	8030	9530	7330
10	6260	6880	6350	5600	5140	6570	6590	6940	6820	8410	9180	6150
11	6260	6840	6320	5570	5390	6770	6870	7140	7360	8840	8940	7870
12	6540	6860	6320	5570	5220	6810	7130	7240	7740	9070	8780	7510
13	6540	6750	6100	5470	5170	6840	7230	6890	7460	8830	9020	7690
14	6990	6670	6020	5570	5260	6900	7400	6990	7980	9160	8780	7730
15	6990	6670	5900	5520	5160	6940	7520	4720	7800	8940	8560	7870
16	7180	6690	5810	5470	5250	7190	7410	4490	7570	8500	8420	7690
17	7130	6730	5810	5420	5160	7380	7060	6090	8050	8940	8560	7440
18	7080	6710	5780	5500	5200	7390	7110	6200	8440	8910	9350	7370
19	7130	6590	5810	5520	5140	7290	7150	6480	7300	9230	9270	7430
20	7180	6650	5810	5570	5340	7480	7130	---	6730	8670	8860	7250
21	7340	6650	5800	5620	5540	7400	7300	6480	7100	9070	8560	7290
22	7390	6690	5740	5650	5710	7550	7240	6810	7410	8800	8630	7180
23	7500	6650	5740	5800	5700	7430	---	6890	7460	8550	8940	7100
24	7450	6620	5740	6000	5720	7200	7270	6940	7520	9020	8860	7520
25	7130	6620	5740	6010	5820	6930	7190	6990	7920	8680	8870	7270
26	6990	6620	5710	6100	5940	7140	7270	6840	8050	8910	9030	1610
27	7230	6600	5650	6100	5940	7030	7300	6840	8370	8530	8950	409
28	7290	6560	5680	6180	5960	7030	7400	6940	7740	8760	8720	1270
29	6670	6580	5710	6250	5960	6900	7470	7290	8110	8280	8950	2060
30	6800	6580	5620	6200	---	6440	7480	6990	8110	8870	9120	2650
31	6220	---	5650	6200	---	6150	---	7040	---	8550	8790	---
MEAN	6780	6740	6000	5710	5490	6810	7120	6730	7670	8660	8920	6830
WTR YR 1980	MEAN	6960	MAX	9770	MIN	409						

RIO GRANDE BASIN
08406500 PECOS RIVER NEAR MALAGA, NM -- Continued
WATER-QUALITY RECORDS

381

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.5	12.5	7.0	8.0	6.0	12.0	17.0	19.5	25.0	31.0	30.0	30.0
2	22.0	13.5	7.0	8.0	6.5	9.0	15.0	19.0	26.5	26.0	30.0	25.0
3	20.0	12.5	7.0	9.0	8.0	9.5	17.0	19.0	29.0	25.0	27.5	26.0
4	21.0	13.0	7.5	8.5	10.5	11.5	15.0	18.5	30.0	25.0	30.0	27.0
5	19.5	13.0	8.0	8.0	9.0	12.0	16.0	21.0	25.0	26.0	26.0	28.0
6	20.0	13.0	7.5	8.0	9.0	12.0	16.5	22.0	29.0	26.0	29.0	24.0
7	20.0	13.5	8.0	9.0	10.5	16.0	16.5	21.5	27.0	30.0	25.0	24.5
8	22.0	13.0	8.0	9.0	9.0	13.0	16.0	22.0	24.5	31.5	25.0	25.0
9	18.0	13.0	9.0	9.0	8.0	13.5	16.5	22.0	23.5	31.0	25.0	24.0
10	20.0	13.0	11.5	9.0	7.0	14.0	17.0	25.0	26.0	30.0	26.0	22.0
11	18.0	11.5	10.0	10.0	7.5	14.0	20.0	21.0	24.0	30.0	23.5	23.0
12	18.0	11.5	10.0	8.5	7.0	13.5	14.5	20.0	25.0	27.0	23.0	25.5
13	19.5	11.0	9.0	9.5	7.0	13.0	12.0	21.0	25.5	27.5	23.0	25.0
14	18.0	12.0	8.5	10.0	9.0	16.5	13.0	20.0	27.0	31.0	24.0	24.5
15	22.0	13.0	8.0	11.0	11.0	13.5	16.0	18.0	25.0	31.5	25.0	28.0
16	18.0	13.0	8.0	10.5	10.0	14.5	17.5	17.0	26.0	28.0	30.0	25.0
17	18.0	14.0	7.5	10.5	8.0	13.0	17.5	24.5	25.0	26.0	25.5	24.0
18	20.0	14.0	6.5	12.0	8.5	12.0	18.0	20.0	31.0	30.0	29.0	23.0
19	19.0	12.5	9.0	12.0	13.5	16.0	20.5	21.0	29.0	25.0	27.0	23.0
20	19.0	13.5	8.0	10.5	12.0	14.0	19.0	26.0	28.5	25.0	30.0	28.0
21	18.5	13.0	9.0	9.5	14.0	15.0	21.0	26.0	25.5	29.5	30.0	24.0
22	18.0	10.0	10.0	10.0	15.0	14.0	24.0	25.0	25.0	29.0	29.0	22.0
23	17.5	10.0	10.0	8.0	15.5	14.0	---	26.5	29.5	30.5	25.0	22.0
24	18.0	11.5	10.0	8.0	12.0	14.0	19.0	23.0	25.0	26.0	25.5	23.0
25	18.0	9.5	10.0	9.0	12.5	17.0	17.0	22.0	28.0	26.0	27.0	---
26	17.5	9.5	10.0	9.0	12.5	14.0	16.0	27.0	27.0	26.0	27.0	19.0
27	16.5	12.0	11.0	8.0	13.0	15.0	20.0	25.0	30.0	26.0	24.0	17.0
28	17.0	10.5	9.0	7.0	14.0	15.0	19.0	28.5	30.0	26.0	23.0	17.0
29	16.0	8.0	8.5	8.0	14.0	14.0	18.5	29.0	29.0	27.0	29.0	18.0
30	15.0	7.5	9.0	7.0	---	14.0	20.0	27.5	26.0	26.0	25.0	20.0
31	13.0	---	8.0	6.0	---	16.0	---	25.0	---	25.0	24.0	---
MEAN	18.5	12.0	8.5	9.0	10.5	13.5	17.5	22.5	27.0	27.5	26.5	23.5
WTR YR 1980		MEAN	18.0	MAX	31.5	MIN	6.0					

RIO GRANDE BASIN

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 (168 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 mi² (49,880 km²), 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. Flow regulated by storage in Lake Sumner, Lake McMillan, and Lake Avalon (stations 08384000, 08400500, 08403800), and by several small diversion dams that divert for power or irrigation. Diversions and ground-water withdrawals above station for irrigation of about 202,000 acres (820 km²), 1959 determination.

AVERAGE DISCHARGE.--32 years (1939-41, 1952-80), 139 ft³/s (3.936 m³/s), 100,700 acre-ft/yr (124 hm³/yr).EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge determined 65,000 ft³/s (1,840 m³/s) Aug. 23, 1966, maximum gage height, 31.6 ft (9.63 m) from floodmarks; minimum discharge, 0.54 ft³/s (0.015 m³/s) May 30, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge determined, 6,540 ft³/s (188 m³/s) Sept. 26; maximum gage height 18.68 ft (5.694 m) Sept. 26; minimum, 9.0 ft³/s (0.255 m³/s) June 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	69	56	66	62	47	32	27	24	17	12	18
2	38	56	57	67	70	45	29	26	21	15	13	17
3	38	43	57	68	72	45	32	27	20	14	13	17
4	35	41	58	68	72	44	30	32	21	12	13	16
5	50	39	58	66	72	43	28	45	23	10	14	16
6	64	41	58	65	65	45	28	48	22	11	12	16
7	59	43	58	65	65	43	28	43	18	17	11	16
8	44	45	58	66	65	37	32	37	17	18	12	20
9	49	48	58	66	65	35	65	33	18	17	12	57
10	53	54	58	66	65	33	53	31	27	15	12	85
11	48	57	58	67	65	31	34	29	27	14	14	197
12	50	56	60	69	66	31	30	27	19	13	17	128
13	48	55	65	68	66	29	40	28	18	14	20	76
14	45	57	70	68	66	28	44	43	17	15	23	52
15	41	55	75	68	66	29	32	171	18	14	21	42
16	41	55	76	68	69	27	28	182	16	16	17	44
17	43	59	69	67	68	25	27	95	11	13	13	59
18	39	61	66	67	68	23	26	56	10	11	16	54
19	38	60	66	67	67	24	26	43	15	11	17	44
20	37	63	65	68	66	24	29	40	24	12	18	43
21	35	58	66	68	62	22	33	40	24	13	18	46
22	33	57	68	68	58	23	31	36	19	11	19	41
23	32	56	68	69	53	26	33	34	17	13	17	40
24	30	55	68	70	51	26	32	32	17	14	14	40
25	36	57	65	68	51	28	33	32	14	15	13	38
26	37	60	65	60	51	29	30	41	12	14	14	6640
27	32	61	65	58	50	31	28	36	12	12	14	4920
28	38	59	66	56	50	34	26	28	11	15	14	661
29	55	55	66	56	49	38	24	22	10	14	15	306
30	60	54	66	56	---	46	24	21	16	13	18	196
31	66	---	66	59	---	41	---	27	---	12	18	---
TOTAL	1358	1629	1975	2028	1815	1032	967	1412	538	425	474	13945
MEAN	43.8	54.3	63.7	65.4	62.6	33.3	32.2	45.5	17.9	13.7	15.3	465
MAX	66	69	76	70	72	47	65	182	27	18	23	6640
MIN	30	39	56	56	49	22	24	21	10	10	11	16
AC-FT	2690	3230	3920	4020	3600	2050	1920	2800	1070	843	940	27660
CAL YR 1979	TOTAL	19851	MEAN 54.4	MAX 439	MIN 12	AC-FT 39370						
WTR YR 1980	TOTAL	27598	MEAN 75.4	MAX 6640	MIN 10	AC-FT 54740						

RIO GRANDE BASIN
08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM -- Continued
WATER-QUALITY RECORDS

383

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.

HARDNESS: March 1938 to September 1941, October 1951 to current year.

DISSOLVED SOLIDS: March 1938 to September 1941, October 1951 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.

HARDNESS: Maximum, 4,850 mg/L Aug. 16, 1969; minimum, 202 mg/L Sept. 21, 1941.

DISSOLVED SOLIDS: Maximum, 40,900 mg/L Aug. 1-7, 1966; minimum, 280 mg/L Sept. 21, 1941.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 28,100 micromhos Sept. 26; minimum daily, 552 micromhos Sept. 27.

WATER TEMPERATURES: Maximum, 31.0°C July 23, Aug. 16; minimum, 5.0°C Feb. 1.

HARDNESS: Maximum, 2,900 mg/L July 1-31, Aug. 1-31; minimum 1,600 mg/L May 17-20.

DISSOLVED SOLIDS: Maximum, 16,500 mg/L Sept. 26; minimum, 4,520 mg/L May 21.

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM- FLOW (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	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)	ALKA- LINITY (MG/L AS CACO3) (00410)
OCT											
01-31	44	10900	8.0	2400	2300	580	240	1600	14	57	140
NOV											
01-30	54	10300	7.7	2100	2000	480	230	1800	17	48	140
DEC											
01-31	64	9220	7.5	2000	1900	470	210	1600	16	41	140
JAN											
01-31	65	8250	8.8	1900	1800	440	190	1300	13	40	64
FEB											
01-29	63	8650	7.8	1900	1800	450	190	1200	12	38	100
MAR											
01-12	40	9930	7.1	2000	2000	470	210	1600	15	51	82
13-31	29	13000	7.2	2200	2100	500	240	2300	21	85	120
APR											
01-30	32	12100	7.8	2200	2100	500	240	2000	18	62	110
MAY											
01-14	34	12500	8.0	2400	2200	550	240	2000	18	69	120
15-16	176	10500	7.7	1800	1700	420	180	1700	17	60	110
17-20	58	7770	8.1	1600	1500	390	150	1200	13	35	100
21...	40	6600	7.8	2000	1900	490	190	730	7.1	16	130
22-30	31	11500	7.7	2200	2000	500	220	1900	18	57	120
31...	27	13400	7.4	2400	2200	550	240	2100	19	76	130
JUN											
01-19	19	15000	8.0	2500	2400	580	260	2600	23	100	110
20-30	16	17700	8.4	2500	2500	570	270	3200	28	110	73
JUL											
01-31	14	18800	7.1	2900	2900	660	310	3400	27	42	66
AUG											
01-31	15	18500	7.3	2900	2800	660	300	3300	27	110	94
SEP											
01-10	28	16300	9.8	2400	2400	520	270	3300	29	90	41
11-12	162	13500	10.0	2100	2100	460	230	2200	21	60	28
13-25	48	11700	9.6	2500	2500	550	270	1900	17	44	30
26...	6640	28100	8.1	2000	2000	350	280	5200	50	210	43
WTD. AVG.	--	16200	8.0	2100	2040	452	241	2850	27	102	85
TIME WTD.											
AVG.	59	12500	7.9	2290	2210	528	240	2120	19	62	101
TOT. LOAD (TONS)	--	--	--	--	--	26300	14000	166000	--	5910	4940

RIO GRANDE BASIN
08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM -- Continued
WATER-QUALITY RECORDS

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	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)
OCT											
01-31	1800	2700	.9	14	--	7080	9.63	841	1.4	--	--
NOV											
01-30	1900	2600	.8	9.9	--	7160	9.74	1040	1.7	--	--
DEC											
01-31	1800	2300	.8	9.4	--	6510	8.85	1130	1.8	--	--
JAN											
01-31	1600	2200	.7	1.1	--	5810	7.90	1020	.37	--	--
FEB											
01-29	1500	1900	.8	6.6	--	5350	7.28	910	1.4	--	--
MAR											
01-12	1600	2900	.8	4.1	7110	6890	9.37	744	--	610	40
13-31	1800	3600	.8	7.4	9200	8610	11.7	674	--	780	70
APR											
01-30	2000	3500	.8	6.3	--	8380	11.4	724	.74	--	--
MAY											
01-14	1900	3500	1.0	5.5	--	8340	11.3	772	.90	--	--
15-16	1500	2900	.8	6.3	--	6840	9.30	3250	1.5	--	--
17-20	1300	2000	.8	4.6	--	5150	7.00	806	1.2	--	--
21...	1600	1400	.9	6.8	--	4520	6.15	488	1.4	--	--
22-30	1700	3200	.9	5.7	--	7660	10.4	641	.88	--	--
31...	1800	3500	.8	8.6	--	8360	11.4	609	.97	--	--
JUN											
01-19	2000	4600	.2	15	--	10200	13.9	523	.76	--	--
20-30	2200	5500	.5	3.6	--	11900	16.2	514	.30	--	--
JUL											
01-31	2100	6000	.9	12	--	12600	17.1	476	1.0	--	--
AUG											
01-31	2300	5900	.9	8.4	--	12600	17.1	510	1.1	--	--
SEP											
01-10	2000	5100	.7	1.6	10800	11300	15.4	854	--	1100	70
11-12	1800	3700	.7	3.2	8890	8470	11.5	3700	--	800	90
13-25	2200	3300	.7	8.2	7840	8290	11.3	1070	--	720	80
26...	1800	8600	.5	1.8	--	16500	22.4	296000	--	1300	90
WTD. AVG.	1800	4700	.7	5.7	--	10200	13.9	--	1.2	--	--
TIME WTD.											
AVG.	1880	3560	.8	8.0	--	8460	11.5	--	1.1	--	--
TOT. LOAD (TONS)	104000	273000	40	329	--	593000	--	--	41	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

ONCE-DAILY												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10400	10400	9820	8450	8650	9050	11400	13300	13900	18200	19000	17900
2	10400	9560	9820	8350	8610	9260	11900	14200	13500	18000	19100	18100
3	10600	9480	9820	8250	8590	9650	12200	13800	13200	17800	18400	18600
4	10700	8650	9820	8250	8280	9010	12200	13100	13400	17600	18400	19200
5	10800	9010	9730	8420	8310	10000	11200	13200	13600	17700	18000	18800
6	11200	9240	10000	8470	8430	10600	11900	12100	14200	18400	19000	18800
7	10900	10000	9820	8640	8180	9780	12000	11500	14000	19900	19100	17800
8	9900	10300	10000	8300	8490	9710	12400	11500	13900	20000	19600	17500
9	9530	11000	9730	8290	8260	10300	12400	11600	14700	18700	19600	12200
10	10400	11500	9640	8120	7890	10700	11700	11700	15600	17700	18800	16000
11	9710	10800	9820	8330	7670	10900	10500	12100	15500	17200	18500	15400
12	9710	10800	10000	8390	8160	11100	10600	12500	15300	17400	18300	10300
13	9900	10800	9560	7920	7620	12100	11000	12900	15200	18000	19100	10900
14	9800	10300	9730	8090	7670	13000	11800	13100	15400	18700	19500	11400
15	9900	10200	9550	8250	7870	12600	10600	10300	15500	18900	18500	11400
16	9810	10200	9470	8140	8270	11900	10800	10600	16200	18900	16600	11400
17	10200	10400	8710	8010	8140	11900	11400	7090	16200	18600	17200	11800
18	10800	10500	8570	8110	7560	12100	12400	7280	16100	18300	17200	12200
19	10700	10700	8570	8140	8270	12900	12900	8160	16700	18700	17900	11700
20	10800	10800	8710	8160	8420	13300	13600	9140	17900	19000	17900	11700
21	11200	10600	8850	7970	9450	13500	13600	6600	18300	19800	17400	12000
22	11300	10400	8990	7990	8590	13700	12600	10500	17200	20200	17500	12000
23	11800	9910	9070	8270	8390	14400	---	9580	16100	19100	17800	12200
24	11800	9820	8990	7910	8330	14600	12400	10800	16400	19300	17800	12300
25	11400	9910	8430	8030	8630	14400	12500	11400	17100	19300	18000	12200
26	11700	10400	8770	8100	8860	13400	12900	11900	17400	19400	17900	2150
27	11700	10500	8770	8250	9070	13400	12900	12100	17300	19300	17700	552
28	11900	10200	8840	8450	9060	13800	12700	12500	17700	19700	18200	1530
29	12600	9650	8840	8540	8930	12900	12700	12500	17800	19900	18400	2730
30	12000	9650	8700	8450	---	12700	13000	12700	18200	19500	18100	4210
31	12200	---	8850	8600	---	11300	---	13400	---	19300	18100	---
MEAN	10800	10200	9290	8250	8370	11900	12100	11400	15800	18800	18300	12200
WTR YR 1980		MEAN 12300		MAX	20200		MIN	552				

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	12.5	6.0	8.0	5.0	12.0	16.0	20.0	26.0	29.0	28.0	30.0
2	23.0	13.0	6.0	8.0	6.0	7.0	15.0	20.0	27.0	27.5	26.0	27.5
3	21.5	12.5	6.0	8.0	7.0	9.0	18.0	20.0	27.5	27.0	28.0	25.5
4	21.0	12.0	6.0	8.5	11.0	10.0	15.5	19.5	28.0	26.0	30.5	26.5
5	20.0	13.0	7.0	8.0	9.0	11.0	17.0	21.0	26.0	26.5	27.5	27.0
6	21.0	13.0	7.0	8.0	9.0	12.0	17.0	22.0	30.0	27.0	28.5	25.0
7	20.5	12.5	7.0	8.0	10.5	13.5	17.0	22.5	28.0	28.5	26.5	24.5
8	22.0	12.0	8.0	6.5	10.0	14.0	16.5	23.0	25.5	29.0	26.5	25.0
9	19.5	13.0	8.0	8.0	8.0	13.5	17.0	23.0	25.0	29.0	26.0	24.0
10	19.0	13.0	10.5	7.5	6.0	14.5	18.0	22.5	25.0	28.0	27.0	23.0
11	18.0	11.0	10.0	9.0	6.5	13.5	19.0	22.0	24.0	28.0	24.0	24.0
12	19.5	11.0	9.5	7.5	7.0	14.0	16.0	21.0	25.0	27.0	24.0	25.0
13	20.5	10.5	8.5	8.5	6.5	13.0	13.5	21.0	27.0	27.5	22.0	26.5
14	18.0	12.0	7.5	9.0	8.0	15.0	12.5	21.0	28.0	29.5	24.5	25.5
15	22.0	12.0	7.0	11.0	10.0	13.0	13.0	19.0	26.0	29.5	26.0	27.5
16	19.0	12.0	7.0	10.5	10.0	14.0	18.0	18.5	26.0	28.0	31.0	27.0
17	19.0	13.5	7.0	10.0	8.0	12.5	17.0	24.0	26.0	29.0	27.0	24.5
18	19.0	14.0	6.0	11.5	7.5	12.0	18.5	21.0	28.5	28.0	25.0	25.0
19	19.0	12.0	6.0	11.5	13.0	14.0	20.0	22.0	29.0	26.0	27.5	25.0
20	19.5	13.5	7.0	10.0	13.0	13.5	19.5	26.0	28.5	26.0	28.0	29.0
21	19.0	12.0	8.0	9.0	14.0	15.0	20.5	25.5	26.5	28.5	28.0	24.0
22	18.0	10.0	9.0	9.0	14.5	14.0	23.0	26.0	26.0	29.0	28.0	23.0
23	18.0	9.0	9.0	8.0	14.5	14.0	---	24.0	29.0	31.0	27.0	23.0
24	18.0	10.5	9.0	7.0	12.5	14.0	20.0	24.0	28.0	29.0	27.0	22.5
25	18.0	9.0	9.0	8.5	12.5	16.0	18.0	23.0	26.0	30.0	28.0	22.0
26	17.5	9.0	9.0	8.0	12.5	17.0	16.0	27.0	27.0	27.0	27.0	19.5
27	18.0	11.0	10.0	7.5	13.0	15.0	18.5	25.0	29.0	26.5	25.5	17.0
28	17.0	10.0	8.5	6.5	13.5	15.0	19.0	26.0	29.0	27.0	24.0	17.0
29	16.5	8.0	8.0	7.0	14.0	14.5	20.0	28.5	28.0	27.0	30.0	15.0
30	15.0	7.0	8.0	7.0	---	14.0	21.0	26.5	27.0	28.0	26.0	20.5
31	13.0	---	8.0	6.0	---	16.0	---	27.0	---	26.5	25.5	---
MEAN	19.0	11.5	8.0	8.5	10.0	13.5	17.5	23.0	27.0	28.0	27.0	24.0
WTR YR 1980		MEAN	18.0	MAX	31.0	MIN	5.0					

RIO GRANDE BASIN
08407500 PECOS RIVER AT RED BLUFF, NM -- Continued
WATER-QUALITY RECORDS

387

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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										
11...	1100	57	9500	8.1	34.5	18.0	8.4	9.8	55	2100
NOV										
08...	1035	44	7400	8.2	26.0	13.0	7.7	10.8	38	2100
DEC										
04...	1030	69	10400	8.2	17.0	7.0	11	--	240	2200
JAN										
17...	1015	65	8840	8.2	14.5	10.0	5.4	12.2	51	1800
FEB										
27...	0930	57	9560	8.5	25.0	14.0	4.5	11.0	66	1900
MAR										
26...	0900	25	1490	8.5	23.0	16.5	26	12.6	170	2100
APR										
29...	0930	26	12800	8.2	32.0	23.0	28	10.0	150	2400
MAY										
28...	0945	37	12500	8.3	31.0	27.0	17	7.4	170	2200
JUN										
25...	0930	32	22500	8.4	35.0	26.0	2.1	8.1	100	2800
JUL										
23...	0945	11	24000	8.2	32.0	28.0	18	7.5	65	3200
AUG										
27...	1000	12	19600	8.4	31.0	26.0	3.7	7.9	50	3000
SEP										
24...	1130	52	13500	8.6	36.0	24.0	17	9.2	77	2600

DATE	HARD- NESS, NONCAR- BONATE (MG/L AS 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 (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
OCT									
11...	2000	510	210	1700	16	55	110	1900	2800
NOV									
08...	1900	480	210	1400	13	48	120	1600	2300
DEC									
04...	2100	530	220	1600	15	19	150	1600	2600
JAN									
17...	1700	420	190	1400	14	39	130	1600	2200
FEB									
27...	1800	460	190	1500	15	42	130	1600	2400
MAR									
26...	2000	480	220	2700	26	91	100	2000	3900
APR									
29...	2300	550	250	2400	21	7.3	97	2100	3700
MAY									
28...	2100	500	240	2200	20	74	110	1800	3600
JUN									
25...	2700	620	300	3300	27	110	74	2500	5600
JUL									
23...	3100	710	340	3800	29	140	92	2700	6400
AUG									
27...	3000	680	320	3700	29	120	66	2600	5800
SEP									
24...	2500	580	280	1900	16	52	80	2000	3500

RIO GRANDE BASIN
08407500 PECOS RIVER AT RED BLUFF, NM -- Continued
WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 11...	.8	14	7490	7260	.72	.72	.100	.120	1.0
NOV 08...	.8	9.5	6550	6130	1.0	.97	.180	.260	1.3
DEC 04...	.8	12	7220	6680	1.6	1.4	.300	.240	.90
JAN 17...	.8	4.1	6090	5940	.78	.78	.140	.140	1.5
FEB 27...	.7	2.9	6320	6280	.33	.33	.290	.220	1.5
MAR 26...	.9	.9	10600	9450	.00	.09	.180	.490	3.7
APR 29...	.9	4.9	9710	9070	.00	.02	.090	.130	2.3
MAY 28...	.5	6.0	8940	8490	.02	.02	.300	.300	1.6
JUN 25...	.9	6.2	12900	12500	.00	.00	.140	.030	2.2
JUL 23...	1.2	4.2	14100	14200	.00	.01	.160	.100	.94
AUG 27...	1.0	.4	13000	13300	.00	.00	.200	.230	1.3
SEP 24...	.9	13	8930	8380	.22	.22	.200	.200	1.9

DATE	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHOPH OSPHATE DISSOL. (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- PENDE (MG/L AS C) (00689)
OCT 11...	1.8	.030	.010	630	30	--	9.2	5.2	1.2
NOV 08...	2.5	.020	.000	540	30	--	5.3	4.5	.5
DEC 04...	2.8	.020	.000	560	20	40	--	9.1	.7
JAN 17...	2.4	.060	.010	460	30	--	7.2	4.0	--
FEB 27...	2.1	.120	.000	530	90	--	13	7.6	3.6
MAR 26...	3.9	.130	.010	850	10	120	--	7.7	4.4
APR 29...	2.4	.100	.000	810	70	--	15	12	.5
MAY 28...	1.9	.110	.000	780	70	--	8.7	6.8	2.5
JUN 25...	2.3	.150	.000	1100	80	60	--	11	3.2
JUL 23...	1.1	.080	.010	1400	150	--	11	12	4.1
AUG 27...	1.5	.040	.000	1300	100	--	9.9	8.1	.8
SEP 24...	2.3	.050	.020	40	80	20	--	8.8	2.3

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIIUM, 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)
DEC 04...	1030	2	1	500	300	560	0	1	0	10
JAN 17...	1015	--	--	--	--	460	--	--	--	--
MAR 26...	0900	1	0	400	30	850	1	2	20	10
APR 29...	0930	--	--	--	--	810	--	--	--	--
JUN 25...	0930	3	1	200	200	1100	1	1	20	20
JUL 23...	0945	--	--	--	--	1400	--	--	--	--
SEP 24...	1130	2	2	300	100	40	1	0	20	20

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO) (01037)	COBALT, DIS- SOLVED (UG/L AS CU) (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 04...	0	0	1	2	520	20	5	1	60	40
JAN 17...	--	--	--	--	--	30	--	--	--	--
MAR 26...	1	<3	6	2	550	10	4	0	170	120
APR 29...	--	--	--	--	--	70	--	--	--	--
JUN 25...	0	0	13	9	830	80	6	3	180	60
JUL 23...	--	--	--	--	--	150	--	--	--	--
SEP 24...	1	0	4	0	500	80	5	1	210	20

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 RECOV- ERABLE (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 04...	.0	.0	5	0	2	3	0	0	30	30
JAN 17...	--	--	--	--	--	--	0	--	--	--
MAR 26...	.0	.1	5	2	2	2	0	0	80	30
APR 29...	--	--	--	--	--	--	1	--	--	--
JUN 25...	.0	.1	16	5	2	2	0	0	130	40
JUL 23...	--	--	--	--	--	--	0	--	--	--
SEP 24...	.2	.1	7	0	2	2	0	0	50	150

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS BETA, 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 (PCI/L METHOD PCI/L) (09511)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L) (80020)
OCT 11...	1100	<130	.9	<50	2.1	<50	2.2	.27	7.6
APR 29...	0930	<180	1.3	<96	1.4	<99	1.4	.16	4.9

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/L) (39516)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/L) (39330)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/L) (39350)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/L) (39360)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39363)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/L) (39365)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39368)
NOV 08...	1035	ND	--	ND	--	ND	--	ND	--	ND	--
NOV 08...	1335	--	ND	--	ND	--	ND	--	ND	--	ND
FEB 27...	0930	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/L) (39370)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39373)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/L) (39570)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39571)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/L) (39380)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/L) (39390)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/L) (39398)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39399)	HEPTA- CHLOR, TOTAL (UG/L) (39410)
NOV 08...	ND	--	ND	--	ND	--	ND	--	ND	--	ND
NOV 08...	--	ND	--	ND	--	ND	--	ND	--	ND	--
FEB 27...	ND	--	ND	--	ND	--	ND	--	ND	--	ND

RIO GRANDE BASIN
08407500 PECOS RIVER AT RED BLUFF, NM -- Continued
WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTA- CHLOR EPOXIDE TOT. IN BOT. MA- TERIAL (UG/KG) (39423)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/L) (39340)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/L) (39530)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39531)	METH- OXY- CHLOR, TOT. IN BOT. MA- TERIAL (UG/L) (39480)	METH- OXY- CHLOR, TOT. IN BOT. MA- TERIAL (UG/KG) (39481)	METHYL PARA- THION, TOT. IN BOT. MA- TERIAL (UG/L) (39600)	METHYL PARA- THION, TOT. IN BOT. MA- TERIAL (UG/KG) (39601)
NOV 08...	--	ND	--	ND	--	ND	--	ND	--	ND	--
NOV 08...	ND	--	ND	--	ND	--	ND	--	ND	--	ND
FEB 27...	--	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	METHYL TRI- THION, TOTAL (UG/L) (39790)	METHYL TRI- THION, TOT. IN BOT. MA- TERIAL (UG/KG) (39791)	PARA- THION, TOTAL (UG/L) (39540)	PARA- THION, TOT. IN BOT. MA- TERIAL (UG/KG) (39541)	TOX- APHENE, TOTAL (UG/L) (39400)	TOX- APHENE, TOT. IN BOT. MA- TERIAL (UG/KG) (39403)	TRI- THION, TOTAL (UG/L) (39786)	TRI- THION, TOT. IN BOT. MA- TERIAL (UG/KG) (39787)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)
NOV 08...	ND	--	ND	--	ND	--	ND	--	ND	ND
NOV 08...	--	ND	--	ND	--	ND	--	ND	--	--
FEB 27...	ND	--	ND	--	ND	--	ND	--	--	--

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 11...	1100	16	14
NOV 08...	1035	5	2
DEC 04...	1030	1	3
JAN 17...	1015	1	2
FEB 27...	0930	--	4
MAR 26...	0900	33	0
APR 29...	0930	7	25
MAY 28...	0945	14	12
JUN 25...	0930	40	240
JUL 23...	0945	26	450
AUG 20...	1000	16	700
AUG 27...	1000	16	700
SEP 24...	1130	33	500

ND Material specifically tested for but not detected.

RIO GRANDE BASIN
08407500 PECOS RIVER AT RED BLUFF, NM -- Continued
WATER-QUALITY RECORDS

391

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

IDENTIFICATION OF PHYTOPLANKTON
PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	NOV 8,79		MAR 26,80		MAY 28,80		JUN 25,80		SEP 24,80	
TIME	1035		0900		0945		0930		1130	
TOTAL CELLS/ML	7300		280000		110000		86000		1700000	
DIVERSITY: DIVISION	1.5		0.6		1.5		1.0		0.2	
..CLASS	1.5		0.6		1.5		1.0		0.2	
..ORDER	2.2		0.6		2.2		1.2		0.4	
...FAMILY	2.6		1.0		2.3		1.2		0.6	
....GENUS	2.6		1.1		2.8		1.3		0.6	
ORGANISM	CELLS	PER-	CELLS	PER-	CELLS	PER-	CELLS	PER-	CELLS	PER-
	/ML	CENT	/ML	CENT	/ML	CENT	/ML	CENT	/ML	CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	--	-	*	0
....COELASTRACEAE										
....COELASTRUM	--	-	--	-	2500	2	--	-	--	-
...MICRACINACEAE										
....MICRACINUM	--	-	--	-	--	-	--	-	*	0
...OOCYSTACEAE										
....ANKISTRODESMUS	600	8	7300	3	2800	3	--	-	*	0
....CHLORELLA	--	-	12000	4	--	-	--	-	--	-
....CHODATELLA	--	-	--	-	1200	1	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	5000	5	--	-	*	0
....OOCYSTIS	--	-	--	-	930	1	930	1	*	0
....SELENASTRUM	--	-	--	-	--	-	620	1	*	0
....TETRAEDRON	--	-	--	-	--	-	--	-	*	0
...SCENEDESMACEAE										
....SCENEDESMUS	380	5	22000	8	2500	2	--	-	*	0
...VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	38	1	--	-	--	-	--	-	*	0
CHRYSOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
...CHAETOCERACEAE										
....CHAETOCEROS	--	-	12000	4	--	-	--	-	--	-
...COSCINODISCAEAE										
....CYCLOTELLA	1200#	17	230000#	81	28000#	26	62000#	72	14000	1
....MELOSIRA	75	1	--	-	3700	3	--	-	--	-
....STEPHANODISCUS	--	-	--	-	1500	1	--	-	--	-
...PENNALES										
...FRAGILARIACEAE										
....FRAGILARIA	--	-	--	-	--	-	--	-	*	0
...NITZSCHIAEAE										
....NITZSCHIA	2400#	33	--	-	6200	6	--	-	14000	1
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
...CRYPTOMONADALES										
....CRYPTOMONADACEAE										
....CRYPTOMONAS	38	1	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
...CHROOCOCCALES										
....CHROOCOCCACEAE										
....AGMENELLUM	--	-	--	-	20000#	19	15000#	17	40000	2
....ANACYSTIS	300	4	--	-	1200	1	620	1	16000	1
...HORMOGONALES										
...NOSTOCACEAE										
....ANABAENOPSIS	680	9	--	-	--	-	--	-	*	0
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	--	-	--	-	1500000#	93
....OSCILLATORIA	1500#	21	--	-	31000#	29	6200	7	--	-
...RIVULARIACEAE										
....RAPHIDIOPSIS	--	-	--	-	--	-	--	-	21000	1
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
...EUGLENALES										
....EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	930	1	*	0
....TRACHELOMONAS	--	-	--	-	*	0	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 1%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

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 1979 TO SEPTEMBER 1980
PERIPHYTON

DATE	TIME	LENGTH OF EXPO- SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00022)	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
NOV 08...	1035	27	4.41	4.10	.540	.000	574	Polyethylene strip
DEC 04...	1030	25	9.53	8.98	1.16	.000	474	"
MAR 26...	0900	27	3.31	2.99	4.05	.000	79.0	"
JUL 23...	0945	27	.054	.044	11.3	1.30	.89	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 11...	1100	57	18.0	22	3.4	100
NOV 08...	1035	44	13.0	25	3.0	92
DEC 04...	1030	69	7.0	30	5.6	94
JAN 17...	1015	65	10.0	17	3.0	99
FEB 27...	0930	57	14.0	35	5.4	87
MAR 20...	0900	22	16.5	52	3.1	86
APR 29...	0930	26	23.0	29	2.0	95
MAY 28...	0945	37	27.0	48	4.8	95
JUN 25...	0930	32	26.0	49	4.2	98
JUL 23...	0945	11	28.0	34	1.0	94
AUG 27...	1000	12	26.0	28	.91	94
SEP 24...	1130	52	24.0	21	2.9	90

RIO GRANDE BASIN
08407500 PECOS RIVER AT RED BLUFF, NM --- Continued
WATER-QUALITY RECORDS

393

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9610	12600	10300	9110	8850	9910	15100	13900	13600	19100	21400	19500
2	9730	12200	10200	8870	9000	10000	14800	14300	14100	19100	21600	19500
3	9920	12300	9910	9030	8940	10300	14100	14200	14400	19200	21600	19900
4	10200	11400	10000	8870	8980	10300	13300	14100	14400	19600	21500	19900
5	10400	10800	10000	9030	9020	10400	12900	14800	14400	20000	21500	19900
6	10700	10000	10100	9030	8940	10600	13000	14800	14700	20100	21500	19900
7	11000	9970	10100	8870	8910	10400	13500	14500	15300	20300	19500	20000
8	11100	9550	10000	8870	8800	10700	13700	14400	14900	20500	21700	20100
9	11200	9330	10200	8870	8840	11300	13600	13500	15300	20700	21700	16500
10	11500	9780	10100	9030	8800	11600	13500	13500	14800	20900	21700	7950
11	11900	10500	10200	8870	9210	11200	13600	13000	15200	20800	21500	4950
12	10500	10900	9910	8720	8710	11100	13400	12800	15500	20600	21300	15600
13	10000	11800	9730	8720	8250	11400	13200	12700	15800	20400	20500	14800
14	10300	11700	9910	9030	8330	11800	12100	12700	15800	20700	19700	11000
15	10000	11000	10000	8870	8480	12100	12000	9260	15800	20700	19700	11000
16	9970	10800	9150	8720	8190	12400	11900	9350	16300	21200	20100	11100
17	10100	10800	9640	8720	8190	12600	12000	13200	16800	21700	20100	11600
18	10200	10600	9560	8790	9860	13400	12600	9260	17100	21800	20000	12200
19	10300	10400	9400	8870	8440	14300	12600	8600	17300	21300	19600	12100
20	10200	10400	8720	8640	8530	14400	12300	8120	17400	21100	19800	12200
21	10300	11000	8640	8640	8510	14000	12400	8120	17400	20700	20100	12900
22	10700	11000	8710	8640	8680	13800	13000	8940	17600	20500	20100	13000
23	11200	11300	8930	8640	9380	13900	14000	9370	18100	20600	19900	12500
24	11200	11200	8930	8430	9400	14500	14700	10200	18400	20900	19100	12400
25	11300	11300	9150	8640	9650	15100	15300	10600	18500	21100	18700	12400
26	11800	10400	9390	8790	9170	15100	15100	12100	18500	21200	18700	2420
27	11800	10200	9390	8640	9070	15300	14400	12100	18800	21200	18700	623
28	12200	10400	8930	8720	9330	15900	13900	12600	19300	21600	18900	894
29	12400	10600	9080	8790	9570	16300	13900	13000	19700	21600	19100	4260
30	11900	10400	9080	8790	---	15800	14100	13100	19600	21100	19200	6560
31	12200	---	9010	8870	---	14900	---	13300	---	21100	19100	---
MEAN	10800	10800	9560	8810	8900	12700	13500	12100	16500	20700	20200	12600
WTR YR 1980	MEAN	13100	MAX	21800	MIN	623						

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	13.5	5.5	7.5	5.5	12.5	17.0	23.0	24.0	28.5	28.5	27.0
2	23.5	12.5	5.0	8.0	6.5	12.0	17.5	24.0	23.0	28.0	27.0	27.0
3	23.5	12.5	5.5	8.5	7.5	12.0	18.0	20.0	27.0	30.5	30.0	26.0
4	22.0	13.5	6.0	8.5	9.5	12.0	18.0	21.5	28.5	29.5	27.0	26.5
5	22.5	14.5	6.5	8.0	10.5	13.5	20.0	23.5	28.0	26.5	27.0	26.0
6	22.0	13.0	7.0	7.5	11.0	15.0	20.5	24.0	28.0	28.0	27.0	25.5
7	22.5	13.0	7.5	7.0	8.0	14.0	20.0	25.0	30.0	28.0	27.5	26.0
8	22.0	14.0	7.5	7.0	6.0	15.5	20.0	25.0	30.0	30.5	28.5	26.0
9	19.0	14.5	8.0	7.5	6.5	15.5	20.5	24.5	22.5	29.5	27.0	23.0
10	20.0	13.5	9.5	8.0	6.5	14.5	20.0	24.5	24.0	27.0	27.5	20.5
11	20.0	12.0	10.0	8.0	7.0	16.0	16.0	23.0	25.5	29.5	22.5	23.5
12	20.0	11.5	9.0	8.0	6.0	16.0	14.0	23.5	26.5	29.5	22.5	25.0
13	19.0	11.0	7.0	10.0	9.5	16.0	15.5	24.0	28.0	29.0	24.5	25.5
14	20.5	10.5	7.5	11.0	9.5	16.0	18.0	20.0	26.0	30.5	25.5	26.0
15	21.5	10.0	7.0	11.5	11.0	17.0	18.0	20.0	28.5	30.5	28.0	27.0
16	22.0	11.5	6.5	11.5	10.5	16.0	20.0	21.0	28.5	28.0	30.0	27.5
17	20.0	11.5	5.5	11.0	8.0	16.0	21.5	22.0	28.0	28.5	28.5	27.0
18	21.0	13.0	5.0	11.0	10.5	13.5	22.0	25.0	28.0	27.5	28.0	26.0
19	20.5	13.0	6.0	11.5	12.0	14.5	22.0	24.0	28.0	27.5	26.0	25.0
20	20.0	13.5	7.0	9.5	13.0	16.5	22.0	25.5	26.0	27.5	28.5	25.0
21	20.0	12.0	8.5	9.0	14.0	16.5	22.0	26.0	27.0	27.0	27.0	24.5
22	19.5	10.5	10.0	8.5	14.5	17.0	22.0	27.0	28.0	25.5	27.5	21.0
23	18.5	9.0	9.0	8.0	15.0	15.5	23.0	26.5	27.0	28.5	28.0	20.5
24	18.0	8.0	8.5	8.0	15.0	15.0	21.5	26.5	28.0	29.5	28.0	22.0
25	18.0	9.5	9.0	8.5	14.5	17.0	19.5	26.5	28.5	28.0	28.0	24.0
26	18.5	9.0	8.0	6.5	14.0	18.0	20.0	26.5	27.5	29.5	27.0	15.0
27	18.5	8.5	8.5	6.0	15.0	17.5	21.0	24.5	27.5	26.5	24.5	14.0
28	18.0	8.5	8.5	7.0	15.5	18.5	22.5	26.0	27.5	27.5	27.5	14.0
29	17.5	7.5	8.0	5.5	16.0	17.0	23.5	26.0	27.0	27.5	27.5	26.0
30	14.0	5.5	8.0	6.0	---	17.5	22.5	26.0	29.0	28.0	27.5	28.5
31	13.5	---	8.0	5.5	---	17.0	---	26.5	---	27.5	27.5	---
MEAN	20.0	11.5	7.5	8.5	10.5	15.5	20.0	24.0	27.0	28.5	27.0	24.0
WTR YR 1980	MEAN	18.5	MAX	30.5	MIN	5.0						

RIO GRANDE BASIN

08408500 DELAWARE RIVER NEAR RED BLUFF, NM

LOCATION.--Lat 32°01'23", long 104°03'15", in NE¼SW¼ 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 mi² (1,785 km²).

PERIOD OF RECORD.--April 1912 to September 1913, May 1914 to June 1915, October 1937 to current year.

Published as "near Malaga" 1912-13, and as "near Angeles, Tex." 1914-15.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,900.66 ft (884.121 m) 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.--43 years (1938-80), 13.5 ft³/s (0.382 m³/s), 9,780 acre-ft/yr (12.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,400 ft³/s (2,310 m³/s) Oct. 2, 1955, gage height, 27.0 ft (8.23 m), from floodmarks, from rating curve extended above 1,500 ft³/s (42.5 m³/s) on basis of slope-area measurements at gage heights 8.65 ft (2.637 m), 12.84 ft (3.914 m), 18.00 ft (5.486 m), and 27.0 ft (8.230 m); no flow many days most years.

Maximum discharge since at least 1911 is that of Oct. 2, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,020 ft³/s (57.2 m³/s) Sept. 27, gage height, 4.80 ft (1.463 m) no other peak above base of 1,700 ft³/s (48 m³/s); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	4.6	5.2	5.6	6.4	5.6	5.3	4.5	2.1	.00	.00	.40
2	.00	5.2	5.4	6.0	6.4	5.3	5.3	4.5	2.1	.00	.00	.40
3	.00	5.8	5.6	5.6	6.0	5.6	5.3	5.6	2.0	.00	.00	.40
4	.00	6.1	5.9	5.6	5.8	6.0	5.3	7.6	1.6	.00	.00	.40
5	.00	6.4	6.2	5.6	5.6	6.0	5.6	6.4	1.2	.00	.00	.40
6	.00	6.1	6.1	5.6	5.5	5.6	6.0	15	1.2	.00	.00	.40
7	.00	6.6	5.7	5.6	5.8	5.6	6.4	12	.40	.00	.00	.40
8	.00	6.7	5.3	5.3	5.4	5.6	6.0	7.2	16	.00	.00	.40
9	.00	6.5	5.2	5.3	5.6	4.9	6.4	6.0	3.9	3.4	.00	10
10	.00	6.4	5.5	5.3	5.8	5.3	6.4	5.3	4.4	37	.00	2.0
11	.00	6.3	6.1	5.3	6.0	4.5	6.8	4.9	4.6	8.6	.00	1.0
12	.00	5.7	6.7	5.3	6.0	4.1	6.4	4.5	3.4	2.7	2.0	1.0
13	.00	5.7	9.0	5.6	5.8	3.7	6.8	4.1	2.1	.91	1.0	1.0
14	.00	6.1	10	6.0	6.1	3.7	6.0	3.7	1.2	.00	.50	.50
15	.00	6.1	8.9	6.0	6.2	3.7	6.0	18	.65	.00	.50	.50
16	.00	6.4	7.1	5.6	5.6	4.1	5.3	13	.40	.00	.50	.50
17	.00	6.9	5.9	5.3	5.7	3.7	5.3	6.4	.16	.00	.50	.50
18	.00	7.1	5.2	5.6	6.3	3.0	5.3	5.3	.40	.00	.50	.50
19	.00	6.4	5.9	5.6	6.7	3.4	5.6	4.1	.40	.00	5.0	1.0
20	.00	6.3	4.4	5.6	6.1	4.5	4.9	3.7	7.2	.00	2.0	1.0
21	.00	6.2	2.9	5.6	5.5	5.3	4.9	3.7	25	.00	.50	1.0
22	.00	6.0	2.9	8.5	5.4	5.3	4.9	3.7	3.3	.00	.50	2.0
23	.00	5.6	2.6	8.5	5.5	5.3	4.9	3.4	1.8	.00	.50	2.0
24	.00	6.0	2.3	7.6	5.6	4.9	4.5	2.7	1.2	.00	.50	2.0
25	4.3	6.3	2.2	6.4	5.6	4.9	4.9	2.0	.65	.00	.50	200
26	4.5	6.0	2.5	6.4	6.0	5.3	4.9	1.8	.69	.00	.40	800
27	4.1	5.4	2.6	6.0	6.0	5.6	4.9	3.0	.40	.00	.40	1200
28	4.1	5.4	2.7	5.6	6.4	5.3	4.9	3.5	.00	.00	.40	800
29	4.4	4.7	2.6	6.0	6.8	4.9	4.9	3.6	.00	.00	.40	200
30	4.3	5.1	2.8	6.0	---	5.3	4.9	2.9	.00	.00	.40	50
31	4.2	---	3.0	6.7	---	5.3	---	2.5	---	.00	.40	---
TOTAL	29.90	180.1	154.4	184.7	171.6	151.3	165.0	174.6	88.45	52.61	17.40	3279.70
MEAN	.96	6.00	4.98	5.96	5.92	4.88	5.50	5.63	2.95	1.70	.56	109
MAX	4.5	7.1	10	8.5	6.8	6.0	6.8	18	25	37	5.0	1200
MIN	.00	4.6	2.2	5.3	5.4	3.0	4.5	1.8	.00	.00	.00	.40
AC-FT	59	357	306	366	340	300	327	346	175	104	35	6510
CAL YR 1979	TOTAL	3951.45	MEAN 10.8	MAX 623	MIN .00	AC-FT 7840						
WTR YR 1980	TOTAL	4649.76	MEAN 12.7	MAX 1200	MIN .00	AC-FT 9220						

08410000 RED BLUFF RESERVOIR NEAR ORLA, TX

LOCATION.--Lat 31°54'06", long 103°54'42", Reeves County, Hydrologic Unit 13070001, at right end of Red Bluff Dam on the Pecos River, 3 mi (5 km) upstream from Salt Creek, and 4.5 mi (7.2 km) north of Orla.

DRAINAGE AREA.--20,720 mi² (53,660 km²), approximately (contributing area).

PERIOD OF RECORD.--February 1937 to current year. Monthly contents only for some periods, published in WSP 1312.

GAGE.--Nonrecording gage. Datum of gage is 0.43 ft (0.131 m) below National Geodetic Vertical Datum.

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 and Grandfalls. The uncontrolled spillway is a cut through natural ground located to the right of right end of dam and is 790 ft (241 m) wide. The controlled 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 or 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 furnished by 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, 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, 85,400 acre-ft (105 hm³) Mar. 11-21, gage height, 2,813.2 ft (857.46 m); minimum observed, 33,980 acre-ft (41.9 hm³) Sept. 9, gage height, 2,797.8 ft (852.77 m). Capacity table (gage height, in feet, and total contents, in acre-feet)

2,797.0	32,300
2,805.0	53,000
2,814.0	89,000

CONTENTS, IN ACRE-FEET, 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	83600	73100	74700	78650	82250	84950	84950	74700	70700	61750	44600	34620
2	83150	73100	75100	78650	82250	84950	84950	74300	69900	61400	44000	34620
3	82250	73100	75100	79100	82700	84950	84950	74300	69100	61400	43000	34620
4	81350	73100	75100	79100	82700	84950	84950	74300	68300	61050	42500	34400
5	80450	73100	75100	79100	82700	84950	84950	73900	67500	60700	41750	34400
6	80000	73100	75100	79100	82700	84950	84500	73900	66700	60350	41000	34190
7	79100	73100	75500	79100	82700	84950	84500	73900	65900	60000	40250	34190
8	78200	73100	75500	79550	83150	84950	84500	73900	65900	59650	39500	34190
9	77750	73100	75500	79550	83150	84950	84500	73900	65900	59300	38760	33980
10	76850	73500	75500	79550	83150	84950	84050	73900	65500	58950	38040	34400
11	75950	73500	75500	79550	83150	85400	83600	73500	65500	58600	37320	34620
12	75500	73500	75950	80000	83600	85400	82700	73500	65500	58250	36600	34840
13	74700	73500	76400	80000	83600	85400	81800	73500	65100	57900	35940	34840
14	73900	73500	76400	80000	83600	85400	81350	73100	65100	57900	35720	34840
15	73100	73900	76400	80000	83600	85400	80900	73100	65100	57550	35720	35060
16	73100	73900	76400	80000	83600	85400	80000	73500	65100	57200	35720	35280
17	73100	73900	76850	80450	83600	85400	79100	73500	64700	56850	35720	35060
18	73100	73900	76850	80450	84050	85400	78650	73500	64700	56150	35720	35060
19	73100	73900	76850	80450	84050	85400	77750	73500	64700	55100	35500	35060
20	73100	73900	76850	80900	84050	85400	77300	73100	64300	54400	35500	35060
21	73100	74300	77300	80900	84500	85400	76400	73100	64300	53700	35500	35060
22	73100	74300	77300	80900	84500	84950	75950	73100	63900	52700	35500	35060
23	73100	74300	77300	80900	84500	84950	75500	72700	63500	51800	35500	34840
24	73100	74300	77750	81350	84500	84950	75500	72700	63500	51200	35280	34840
25	73100	74300	77750	81350	84500	84950	75100	72300	63500	50600	35280	34840
26	73100	74300	77750	81350	84950	84950	75100	72300	63150	49700	35280	38280
27	73100	74700	78200	81800	84950	84950	75100	71900	62800	49100	35060	50900
28	73100	74700	78200	81800	84950	84950	74700	71500	62450	48200	35060	64300
29	73100	74700	78200	81800	84950	84950	74700	71500	62450	47300	35060	66700
30	73100	74700	78200	81800	---	84950	74700	71500	62100	46400	34840	67100
31	73100	---	78200	82250	---	84950	---	71100	---	45500	34840	---
MAX	83600	74700	78200	82250	84950	85400	84950	74700	70700	61750	44600	67100
MIN	73100	73100	74700	78650	82250	84950	74700	71100	62100	45500	34840	33980
(†)	2810.4	2810.8	2811.6	2812.5	2813.1	2813.1	2810.8	2809.9	2807.6	2802.5	2798.2	2808.9
(‡)	-10500	+1600	+3500	+4050	+2700	0	-10250	-3600	-9000	-16600	-10660	+32260
CAL YR 1979	MAX	110600	MIN	73100	‡	-27500						
WTR YR 1980	MAX	85400	MIN	33980	‡	-16500						

† Gage height, in feet, at end of month.

‡ Change in contents, in acre-feet.

RIO GRANDE BASIN

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 release 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.--43 years (water years 1938-78), 169 ft³/s (4.786 m³/s), 122,400 acre-ft/yr (151 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 2,030 ft³/s (57.5 m³/s) at 2400 Sept. 26, gage height, 14.62 ft (4.456 m); minimum, 9.1 ft³/s (0.26 m³/s) Mar. 18, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	28	13	13	15	10	11	65	283	110	301	40
2	348	28	13	13	15	10	12	65	293	110	299	38
3	371	29	14	13	16	10	11	67	293	111	296	38
4	371	30	14	13	15	12	12	68	293	111	295	38
5	371	30	15	14	14	12	12	70	292	110	293	38
6	371	29	15	14	13	12	13	73	291	110	290	38
7	371	30	15	13	13	11	13	42	237	109	290	37
8	371	20	14	13	13	11	12	39	43	109	286	38
9	371	16	14	13	13	10	97	39	50	108	281	56
10	371	16	15	13	14	10	407	38	44	108	277	66
11	371	15	15	13	23	11	406	38	41	108	274	42
12	371	14	16	14	21	11	402	38	40	110	277	40
13	371	15	16	15	13	11	405	39	40	110	253	41
14	371	15	22	14	14	12	407	40	40	110	106	43
15	327	15	24	14	14	11	405	49	40	110	69	43
16	54	15	18	13	12	10	402	81	40	111	60	43
17	43	16	16	13	11	9.5	399	82	40	172	55	42
18	40	17	15	13	12	9.1	397	79	38	291	51	41
19	37	17	14	12	14	9.2	397	79	39	297	48	40
20	35	17	14	13	14	9.8	397	78	60	296	46	40
21	33	16	14	13	12	10	355	77	56	295	42	39
22	31	16	14	17	11	9.9	51	77	56	292	44	37
23	31	16	14	19	9.8	10	70	78	57	296	44	38
24	30	15	14	19	9.7	9.1	69	76	55	316	43	40
25	31	13	14	17	9.7	10	66	76	58	316	42	44
26	31	13	13	15	10	11	66	77	104	314	43	876
27	30	13	13	14	11	11	67	78	115	312	45	1230
28	29	13	13	14	11	11	67	79	110	310	44	234
29	29	11	13	14	11	10	80	78	111	308	42	107
30	26	12	13	14	---	11	68	78	111	305	42	57
31	27	---	13	15	---	11	---	110	---	304	41	---
TOTAL	5777	550	460	437	384.2	325.6	5576	2053	3370	6179	4619	3544
MEAN	186	18.3	14.8	14.1	13.2	10.5	186	66.2	112	199	149	118
MAX	371	30	24	19	23	12	407	110	293	316	301	1230
MIN	26	11	13	12	9.7	9.1	11	38	38	108	41	37
AC-FT	11460	1090	912	867	762	646	11060	4070	6680	12260	9160	7030
CAL YR 1979	TOTAL	33099.0	MEAN	90.7	MAX	612	MIN	11	AC-FT	65650		
WTR YR 1980	TOTAL	33274.8	MEAN	90.9	MAX	1230	MIN	9.1	AC-FT	66000		

PERIOD OF RECORD.--July 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 years 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, 24,300 micromhos April 8; minimum daily, 4,060 micromhos Sept. 27.

WATER TEMPERATURES: Maximum, 28.5°C Aug. 21; minimum 1.0°C Dec. 1.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (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)
OCT 23...	1030	31	14200	8.0	14.0	2300	2200	530	230	2600
NOV 12...	0940	14	22300	--	10.0	3900	3800	950	370	3400
JAN 15...	1525	14	22700	--	12.5	4500	4400	1300	310	4000
FEB 11...	0840	14	21900	--	4.0	3500	3400	860	330	4000
APR 17...	1630	400	10000	--	18.0	2000	2000	540	170	1400
MAY 28...	1245	80	10900	7.5	22.0	2200	2100	580	190	1700
JUL 10...	1630	109	11200	--	27.0	2400	2300	610	210	1800
AUG 21...	1540	42	14100	--	28.5	2700	2600	700	240	2400

DATE	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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 CONSTITUENTS, DIS- SOLVED (MG/L) (70301)
OCT 23...	24	44	130	0	110	2200	4100	.5	9.0	9780
NOV 12...	24	52	160	0	131	1800	6700	1.3	6.8	13400
JAN 15...	26	42	170	0	139	3100	7000	1.1	6.4	15800
FEB 11...	29	41	170	0	139	2900	6800	1.8	7.7	15000
APR 17...	13	45	120	0	98	1700	2400	.7	3.2	6320
MAY 28...	16	46	130	0	107	1800	2900	.8	3.0	7280
JUL 10...	16	57	110	0	90	2000	3100	.4	13	7840
AUG 21...	20	67	120	0	98	2200	4300	.9	10	10100

RIO GRANDE BASIN
08412500 PECOS RIVER NEAR ORLA, TX -- Continued
WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8940	14900	22000	22900	22700	22400	23700	11300	10300	11000	11600	14300
2	10100	15000	22200	23100	22800	22600	23900	11300	10400	11100	11700	15000
3	9000	15100	22500	23000	22900	22700	24200	11200	10400	11100	11800	15100
4	8940	15200	22600	23000	23000	22800	23800	11500	10400	11100	11700	14800
5	9130	15300	22300	22900	23200	22700	23800	11800	10400	11200	11800	14700
6	9000	15500	22400	23000	22700	22900	23900	11700	10400	11100	11800	14500
7	9060	15300	22500	22900	22500	23200	23800	13100	10400	11100	12300	14600
8	9000	15500	22300	23000	22400	23000	24300	11400	11700	11100	12200	14200
9	9200	20100	22000	22900	22500	22900	22500	11600	11900	11300	12000	14300
10	8980	22200	22100	22500	22400	22900	9960	11600	14100	11200	12100	15000
11	9100	22600	22000	22900	22400	22800	9980	11600	13100	11200	12100	14200
12	9070	22200	22200	22800	22600	22900	9920	11700	12900	11300	12100	13700
13	9100	22000	20700	22900	18400	22900	10100	11700	12500	11600	13300	15500
14	9150	21300	21200	21300	22400	23000	10200	11800	12400	11400	17000	16800
15	9060	22200	22500	22600	22600	23300	10100	11900	12100	11400	16700	16900
16	10900	22100	23500	22700	22800	23100	10100	11300	11800	11500	16200	16800
17	14000	22200	23100	22900	22700	22900	10300	11400	11500	11400	15400	16300
18	14100	21900	22800	22800	22400	23100	10000	11300	11500	11200	15100	16000
19	14200	22200	22600	22600	22300	23200	10100	11200	11400	11300	14800	15700
20	14500	22300	22700	22800	22500	23600	10000	11100	11100	11300	14500	15400
21	14400	22200	23500	22700	22900	23200	10500	11200	11300	11300	14700	15200
22	14500	22100	23900	22300	22700	23300	11900	11300	11400	11300	14600	15000
23	14200	22000	23600	22000	22600	23600	11500	11200	11400	11400	14500	14700
24	14300	21900	23400	22900	22500	23700	11400	11100	11400	11400	14900	14500
25	14500	21800	23200	23200	22500	23600	11300	11100	11400	11400	14600	14800
26	14700	22100	23100	23000	22400	23500	11300	11000	11100	11500	14100	8000
27	14800	22000	23000	22900	22500	23600	11400	11000	11100	11500	13900	4060
28	14900	22200	22900	22800	22600	23700	11400	10900	11000	11500	14300	12200
29	15000	22100	22700	22700	22800	23600	11200	11000	11000	11500	14200	14100
30	15100	22200	22800	22600	---	23800	11400	11000	11000	11600	14200	13600
31	15000	---	23000	22900	---	24000	---	10600	---	11500	14100	---
MEAN	11800	20200	22600	22800	22500	23200	14600	11400	11400	11300	13700	14300
WTR YR 1980		MEAN	16600	MAX	24300	MIN	4060					

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	10.0	1.0	6.0	4.5	9.0	16.0	18.0	23.0	24.0	25.0	26.0
2	---	10.0	2.0	6.0	5.0	8.0	15.0	16.0	22.5	24.5	25.0	26.0
3	---	10.0	5.0	7.0	6.0	8.0	14.0	17.0	22.0	25.0	26.0	26.0
4	---	15.0	5.0	8.0	7.0	10.0	14.0	17.0	22.5	25.0	25.0	26.0
5	---	12.0	6.0	6.0	9.0	11.0	15.0	17.0	23.0	25.0	26.0	26.0
6	---	11.0	5.0	7.0	9.0	12.0	17.0	18.0	22.5	25.0	26.0	26.0
7	---	11.0	6.0	5.0	10.0	13.0	16.0	19.0	23.5	25.0	26.0	---
8	---	12.0	7.0	5.0	8.0	13.0	15.0	19.5	24.0	25.0	---	26.0
9	---	13.0	8.0	6.0	4.0	12.0	15.0	19.5	22.0	27.0	26.0	26.0
10	---	11.0	---	6.0	4.0	12.0	13.0	18.5	23.0	26.0	25.5	22.0
11	---	10.0	9.0	9.0	4.0	13.0	17.0	18.0	24.0	25.0	25.0	23.0
12	---	10.0	7.0	7.0	5.0	13.0	13.0	17.5	24.5	25.0	25.0	24.0
13	---	9.0	8.0	9.0	4.0	13.0	11.0	18.0	25.0	25.0	25.0	25.0
14	---	9.0	6.0	10.0	9.0	12.0	12.0	18.5	25.0	25.0	24.0	24.0
15	---	8.0	5.0	11.0	11.0	13.0	13.0	19.0	24.0	25.0	27.0	25.0
16	---	9.0	5.0	13.0	10.0	14.0	13.0	17.5	26.5	26.0	27.0	25.0
17	17.0	9.0	4.0	10.0	6.0	11.0	14.0	17.5	26.5	25.0	27.0	24.0
18	18.0	11.0	3.0	10.0	6.0	10.0	13.0	18.0	26.5	25.0	27.0	24.0
19	19.0	12.0	6.0	11.0	11.0	10.5	14.0	18.5	26.5	27.0	26.0	---
20	18.0	11.0	7.0	9.0	12.0	12.0	15.0	19.0	25.0	25.0	25.0	24.0
21	18.0	10.0	8.0	8.0	12.0	13.0	15.0	20.0	24.5	25.0	27.0	24.0
22	16.0	5.0	10.0	---	12.0	13.0	16.0	20.0	25.0	26.0	26.0	24.5
23	19.0	6.0	10.0	4.0	12.0	12.0	16.0	19.0	26.0	26.5	26.0	22.0
24	14.0	6.0	8.0	6.0	12.0	13.0	14.0	---	26.0	25.5	26.0	23.0
25	14.0	7.0	7.0	6.0	12.0	12.0	14.0	19.0	25.5	26.0	26.0	23.0
26	14.0	8.0	---	7.0	11.0	13.0	---	19.0	24.0	26.0	25.0	20.5
27	14.5	9.0	7.0	6.0	11.0	13.0	16.5	20.5	24.5	25.0	26.0	18.0
28	14.5	9.0	9.0	---	13.0	14.0	15.0	22.0	24.0	25.5	25.0	19.0
29	16.0	4.0	---	6.0	13.0	12.0	16.0	21.5	24.0	26.0	25.0	19.0
30	12.0	3.0	5.0	5.0	---	14.0	17.0	19.5	24.0	25.0	26.0	20.0
31	10.0	---	4.0	5.0	---	14.0	---	22.0	---	25.0	27.0	---
MEAN	15.5	9.5	6.0	7.5	8.5	12.0	14.5	19.0	24.5	25.5	26.0	23.5
WTR YR 1980		MEAN	16.0	MAX	27.0	MIN	1.0					

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 mi² (477 km²).

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 ft³/s (51.0 m³/s) Dec. 18, 1978, gage height, 9.00 ft (2.743 m) from floodmarks, from rating curve extended above 450 ft³/s (13 m³/s) on basis of slope-area measurement of peak flow; minimum, 0.22 ft³/s (0.006 m³/s) Aug. 22, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 249 ft³/s (7.05 m³/s) at 1700 hours Aug. 9, gage height, 4.24 ft (1.292 m), no other peak above base of 200 ft³/s (5.7 m³/s) revised; minimum, 0.22 ft³/s (0.006 m³/s) Aug. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	2.6	4.2	5.6	4.6	19	14	24	18	12	5.8	2.2
2	2.1	2.7	4.4	5.5	4.6	17	12	23	17	11	6.3	1.2
3	1.80	2.5	4.6	5.4	4.8	19	10	26	13	11	6.1	1.7
4	2.5	3.5	4.2	5.6	4.8	21	10	28	15	12	7.0	1.5
5	1.8	2.5	3.8	5.6	5.0	19	11	28	15	12	5.9	1.9
6	.74	.78	4.8	5.6	5.0	20	13	29	16	10	3.6	3.3
7	1.7	.98	4.7	2.9	3.7	20	14	28	14	9.9	4.2	5.9
8	2.0	1.5	4.5	3.0	4.3	19	14	27	12	8.7	4.9	5.8
9	3.3	3.4	4.3	4.8	5.6	19	15	28	12	8.2	20	6.5
10	3.2	4.0	4.5	4.8	5.9	16	14	29	9.1	7.8	11	6.0
11	3.3	4.0	4.7	4.8	5.9	17	13	27	7.7	6.5	9.3	5.2
12	3.3	3.9	4.5	4.8	6.2	19	14	26	7.4	3.8	8.6	4.4
13	2.9	3.9	4.7	4.8	6.4	19	15	22	7.5	2.0	9.5	4.0
14	2.6	4.2	4.8	4.7	8.5	18	14	20	7.8	2.2	7.1	11
15	1.5	4.0	5.0	4.6	24	19	13	20	8.9	2.8	6.3	10
16	5.2	4.0	5.2	4.7	21	19	15	19	9.2	2.5	5.6	9.1
17	8.2	3.8	5.1	5.2	15	16	15	18	8.6	2.7	5.4	7.9
18	9.4	4.1	5.2	5.2	15	17	16	16	8.2	3.8	5.2	8.4
19	10	4.8	5.2	5.2	17	17	16	16	7.4	4.0	4.8	12
20	9.6	5.3	5.2	4.7	33	17	17	14	9.3	3.8	4.6	11
21	8.4	5.4	6.8	4.2	48	17	19	14	11	3.6	3.0	9.4
22	6.2	5.4	7.7	5.3	37	21	20	13	11	3.1	.27	8.2
23	5.8	4.8	7.4	4.9	30	21	21	13	12	2.3	.39	9.4
24	5.4	4.8	7.1	4.8	23	19	23	14	11	2.1	2.7	6.4
25	4.5	4.7	6.9	4.8	19	20	26	16	12	3.1	4.1	.58
26	4.4	4.1	7.0	4.8	18	17	25	19	14	5.5	3.8	.90
27	4.4	3.4	6.6	4.8	19	13	25	20	14	6.2	3.9	.48
28	4.8	3.6	6.3	4.5	20	14	23	16	13	5.9	4.2	3.9
29	3.6	3.6	6.0	4.5	21	16	23	12	14	6.1	3.9	8.9
30	1.4	3.9	5.9	4.5	---	17	24	8.6	13	6.3	3.4	7.6
31	1.8	---	5.8	4.6	---	16	---	13	---	5.6	3.5	---
TOTAL	127.34	110.16	167.1	149.2	435.3	558	504	626.6	348.1	186.5	174.36	174.76
MEAN	4.11	3.67	5.39	4.81	15.0	18.0	16.8	20.2	11.6	6.02	5.62	5.83
MAX	10	5.4	7.7	5.6	48	21	26	29	18	12	20	12
MIN	.74	.78	3.8	2.9	3.7	13	10	8.6	7.4	2.0	.27	.48
AC-FT	253	219	331	296	863	1110	1000	1240	690	370	346	347
CAL YR 1979 TOTAL	10358.60			MEAN 28.4	MAX 537	MIN .74	AC-FT 20550					
WTR YR 1980 TOTAL	3561.42			MEAN 9.73	MAX 48	MIN .27	AC-FT 7060					

RIO GRANDE BASIN
08477110 MIMBRES RIVER AT MIMBRES, NM -- Continued
WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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 17...	1600	8.2	283	8.7	25.0	19.5	6.3	8.2	120	9	34	8.3
NOV 16...	1030	4.0	210	8.4	12.5	11.0	1.2	9.2	120	0	35	7.4
DEC 11...	1600	4.5	210	8.2	13.5	10.0	1.2	9.4	110	0	34	7.1
JAN 17...	1030	5.2	254	8.7	11.0	5.0	2.5	12.3	100	0	31	6.5
FEB 27...	0930	20	232	8.5	11.0	10.0	3.4	10.6	93	4	27	6.2
MAR 20...	1000	18	211	8.8	10.5	9.0	1.9	10.0	80	4	23	5.5
APR 16...	1630	15	247	9.0	26.5	19.5	3.7	8.8	93	3	27	6.1
MAY 08...	1020	28	209	8.4	--	12.0	1.6	--	77	7	22	5.3
JUN 11...	1600	7.5	220	9.0	33.5	25.0	3.4	7.8	110	0	31	6.9
JUL 02...	1505	11	267	8.8	--	25.0	1.9	--	120	5	33	7.9
AUG 20...	1600	4.0	230	9.0	26.5	28.0	3.5	8.1	110	0	33	6.7
SEP 09...	1435	6.3	253	9.2	--	21.0	11	--	110	0	31	6.8

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 (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)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT 17...	11	.4	3.6	110	27	3.6	.3	44	201	198	.05
NOV 16...	11	.4	3.1	120	24	4.1	.2	46	218	203	.08
DEC 11...	12	.5	3.1	130	18	3.7	.3	46	217	203	.28
JAN 17...	11	.5	2.5	110	13	3.3	.3	49	190	184	.21
FEB 27...	9.4	.4	2.3	89	23	4.7	.2	43	173	170	.26
MAR 20...	8.3	.4	2.2	76	22	3.3	.2	40	169	151	.15
APR 16...	9.3	.4	2.7	90	21	3.5	.3	44	181	168	.06
MAY 08...	8.2	.4	2.1	70	20	2.2	.2	43	148	146	.08
JUN 11...	11	.5	2.7	110	19	3.0	.2	49	187	189	.02
JUL 02...	11	.4	3.3	110	21	3.3	.3	48	205	194	.11
AUG 20...	12	.5	3.3	120	14	3.2	.3	53	186	198	.00
SEP 09...	12	.5	3.3	120	12	3.3	.3	52	215	193	.00

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)	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 (MG/L AS C) (00689)
OCT 17...	.05	.030	.000	.82	.90	.100	--	--	5.9	--	--
NOV 16...	.09	.040	.030	.26	.38	.070	10	4	--	6.9	.4
DEC 11...	.11	.010	.010	.42	.71	.100	--	--	4.5	--	--
JAN 17...	.21	.030	.010	.83	1.1	.090	--	--	3.5	--	--
FEB 27...	.24	.000	.000	.46	.72	.070	30	10	--	15	1.8
MAR 20...	.15	.000	.000	.84	.99	.080	--	--	2.7	--	--
APR 16...	.06	.000	.000	.52	.58	.120	--	--	4.9	--	--
MAY 08...	.11	.020	.020	.30	.40	.080	--	--	--	--	--
JUN 11...	.03	.040	.030	.54	.60	.090	<10	3	--	12	.5
JUL 02...	.09	.010	.000	1.5	1.6	.070	--	--	4.8	--	--
AUG 20...	.00	.000	.030	.56	.56	.110	--	--	2.6	--	--
SEP 09...	.00	.000	.020	.56	.56	.100	--	--	2.4	--	--

[illegible][illegible]

RIO GRANDE BASIN
08477110 MIMBRES RIVER AT MIMBRES, NM -- Continued
WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
NOV 16...	.0	2	0	0	0	<3	0	0	0
DEC 11...	--	--	--	--	--	1	--	--	--
FEB 27...	.0	1	0	0	0	0	0	10	10
MAR 20...	--	--	--	--	--	0	--	--	--
JUN 11...	.0	16	0	0	0	0	0	400	<3
JUL 02...	--	--	--	--	--	0	--	--	--
AUG 20...	--	--	--	--	--	0	--	--	--

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 17...	1600	480	290	380
NOV 16...	1030	--	8	54
DEC 11...	1600	270	59	130
JAN 17...	1030	--	33	40
FEB 27...	0930	330	9	72
MAR 20...	1000	--	21	43
APR 16...	1630	920	77	96
JUN 11...	1600	3500	61	240
AUG 20...	1600	12000	460	500

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 16, 79
TIME	1030
TOTAL CELLS/ML	1300
DIVERSITY: DIVISION	1.0
...CLASS	1.0
...ORDER	1.2
...FAMILY	2.7
...GENUS	3.0
ORGANISM	CELLS PER- /ML CENT
CHRYSOPHYTA	
..BACILLARIOPHYCEAE	
...CENTRALES	
...COSCIINODISCACEAE	
....CYCLOTELLA	57 4
...PENNALES	
...ACHNANTHACEAE	
....ACHNANTHES	230# 18
...CYMBELLACEAE	
....CYMBELLA	14 1
...DIATOMACEAE	
....DIATOMA	29 2
...GOMPHONEMATACEAE	
....GOMPHONEMA	57 4
...NAVICULACEAE	
....NAVICULA	110 9
...NITZSCHACEAE	
....NITZSCHIA	130 10
CYANOPHYTA (BLUE-GREEN ALGAE)	
..CYANOPHYCEAE	
...HORMOGONALES	
...OSCILLATORIACEAE	
....OSCILLATORIA	190 15
....PHORMIDIUM	190 15
...RIVULARIACEAE	
....RAPHIIDIOPSIS	270# 21

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 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	MAR 20,80		JUN 11,80	
TIME	1000		1600	
TOTAL CELLS/ML	1600		850	
DIVERSITY: DIVISION	0.9		0.3	
..CLASS	0.9		0.3	
..ORDER	0.9		0.4	
...FAMILY	1.7		2.0	
....GENUS	1.7		2.2	
ORGANISM	CELLS	PER-	CELLS	PER-
	/ML	CENT	/ML	CENT
CHLOROPHYTA (GREEN ALGAE)				
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS	--	-	13	2
....CHLORELLA	--	-	13	2
CHRYSOPHYTA				
..BACILLARIOPHYCEAE				
...CENTRALES				
...COSCINODISCEAE				
....CYCLOTELLA	--	-	13	2
..PENNALES				
...ACHNANTHACEAE				
....ACHNANTHES	--	-	100	12
....COCCONEIS	--	-	26	3
....RHOICOSPHENIA	13	1	13	2
...CYMBELLACEAE				
....CYMBELLA	--	-	13	2
...DIATOMACEAE				
....DIATOMA	160	10	52	6
...FRAGILARIACEAE				
....FRAGILARIA	--	-	26	3
....SYNEDRA	65	4	--	-
...GOMPHONEMACEAE				
....GOMPHONEMA	26	2	26	3
...NAVICULACEAE				
....NAVICULA	78	5	26	3
...NITZSCHACEAE				
....NITZSCHIA	230	15	520#	61
CYANOPHYTA (BLUE-GREEN ALGAE)				
..CYANOPHYCEAE				
...CHROOCOCCALES				
...CHROOCOCCACEAE				
....ANACYSTIS	--	-	13	2
...HORMOGONALES				
...OSCILLATORIACEAE				
....OSCILLATORIA	1000#	65	--	-
NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%				
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%				

RIO GRANDE BASIN
08477110 MIMBRES RIVER AT MIMBRES, NM -- Continued
WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	TIME	LENGTH OF EXPO- SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00022) (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
NOV 16...	1030	30	2.60	1.97	23.5	3.12	26.8	Polyethylene strip
FEB 27...	0930	42	5.12	4.02	28.2	3.13	39.0	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 17...	1600	8.2	19.5	33	.73	86
NOV 16...	1030	4.0	11.0	5	.05	85
DEC 11...	1600	4.5	10.0	6	.07	96
JAN 17...	1030	5.2	5.0	10	.14	100
FEB 27...	0930	20	10.0	8	.43	100
MAR 20...	1000	18	9.0	7	.34	99
APR 16...	1630	15	19.5	1	.04	91
MAY 08...	1020	28	12.0	1	.08	83
JUN 11...	1600	7.5	25.0	8	.16	93
JUL 02...	1505	11	25.0	7	.21	99
AUG 20...	1600	4.0	28.0	19	.21	99
SEP 09...	1435	6.3	21.0	27	.46	98

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 mi² (310 km²), 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 km²) 1959 determination, above station.

AVERAGE DISCHARGE.--32 years, (1949-80), 9.97 ft³/s (0.282 m³/s), 7,220 acre-ft/yr (8.90 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 4,280 ft³/s (121 m³/s) June 18, 1965, gage height, 5.02 ft (1.530 m), from rating curve extended above 160 ft³/s (4.53 m³/s) on basis of slope-area measurement of peak flow; no flow May 14, 1955, result of unusual regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood probably occurred Sept. 3, 1938, when a peak of 9,640 ft³/s (273 m³/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 ft³/s (3.54 m³/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. 14	0400	2,080	58.9	3.93	1.198	Aug. 27	1600	136	3.85	2.71	.826
Aug. 22	1815	645	18.3	3.00	.914	Sept. 6	1345	363	10.3	3.00	.914

Minimum discharge, 1.9 ft³/s (0.054 m³/s) June 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	15	14	13	14	14	16	15	7.2	6.2	13	9.5
2	13	15	14	13	14	14	15	15	8.9	9.9	14	10
3	13	14	14	13	14	15	13	18	7.2	12	15	9.9
4	13	14	14	13	14	14	14	13	11	12	14	9.9
5	13	13	15	13	14	15	14	13	12	12	13	12
6	14	13	15	13	15	13	14	14	12	12	14	22
7	12	14	15	13	15	13	15	15	12	12	14	11
8	13	14	15	13	13	11	13	15	11	12	14	9.2
9	13	14	14	12	14	13	15	15	11	12	15	9.9
10	14	14	15	12	14	13	15	15	12	12	14	14
11	14	13	15	12	14	16	16	15	12	12	10	9.5
12	13	13	16	13	14	15	15	14	12	11	11	6.7
13	13	13	16	12	14	15	15	15	11	8.1	14	8.9
14	13	12	16	12	15	16	15	14	8.9	8.0	631	11
15	13	12	16	14	14	16	16	15	4.8	8.7	47	14
16	13	13	15	13	15	16	15	15	6.0	13	26	14
17	13	13	15	13	16	16	15	15	7.7	13	18	13
18	13	13	15	13	15	16	15	12	11	13	15	13
19	13	13	14	13	15	16	14	13	9.6	13	12	14
20	13	13	15	14	16	15	13	12	9.4	13	8.3	14
21	13	13	15	14	16	15	12	15	9.7	12	16	13
22	14	13	15	14	15	15	13	15	9.6	11	39	10
23	14	13	15	14	16	14	16	14	8.7	12	9.0	9.9
24	14	13	15	14	16	14	16	13	8.1	12	7.7	13
25	15	14	15	14	15	13	16	13	8.6	11	8.0	11
26	15	14	14	13	15	15	16	13	7.7	11	7.7	10
27	15	14	14	13	15	15	16	13	8.0	8.1	14	11
28	15	14	14	13	16	15	13	13	8.9	11	7.5	11
29	16	14	14	13	15	15	13	12	6.9	10	8.6	11
30	16	14	14	14	---	16	16	12	6.9	14	8.9	10
31	16	---	13	14	---	16	---	12	---	14	9.5	---
TOTAL	426	404	456	407	428	455	440	433	279.8	351.0	1068.2	345.4
MEAN	13.7	13.5	14.7	13.1	14.8	14.7	14.7	14.0	9.33	11.3	34.5	11.5
MAX	16	15	16	14	16	16	16	18	12	14	631	22
MIN	12	12	13	12	13	11	12	12	4.8	6.2	7.5	6.7
AC-FT	845	801	904	807	849	902	873	859	555	696	2120	685
CAL YR 1979	TOTAL	5122.5	MEAN 14.0	MAX 47	MIN 6.7	AC-FT 10160						
WTR YR 1980	TOTAL	5493.4	MEAN 15.0	MAX 631	MIN 4.8	AC-FT 10900						

TULAROSA VALLEY BASIN
08481500 RIO TULAROSA NEAR BENT, NM -- Continued
WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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 10...	1215	13	1350	8.3	30.5	13.5	5.5	9.3	0	670
NOV 07...	1145	14	1350	8.4	19.0	11.0	2.3	9.3	5	660
DEC 03...	1220	14	1300	8.3	15.5	7.0	2.6	--	10	660
JAN 16...	1315	13	1360	8.2	11.5	9.0	12	9.8	6	690
FEB 28...	1230	16	1200	8.2	23.0	12.0	8.4	8.9	20	710
MAR 27...	1200	15	1280	8.2	16.0	10.0	12	8.8	9	710
MAY 01...	1230	15	1200	8.3	22.0	16.0	7.8	8.4	0	730
MAY 29...	1245	11	1200	8.3	29.0	17.0	2.1	7.5	17	730
JUN 26...	1300	8.6	1300	8.3	36.0	21.5	3.4	7.4	6	710
JUL 24...	1130	12	1220	8.3	32.0	18.0	3.2	8.2	36	660
AUG 28...	1230	6.7	1600	7.6	27.0	19.0	150	7.6	74	1100
SEP 25...	1230	10	1200	7.9	24.0	20.0	14	7.7	18	730

	HARD- NESS, NONCAR- BONATE (MG/L) (00902)	CALCIUM DIS- SOLVED (MG/L) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) (00925)	SODIUM, DIS- SOLVED (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L) (00935)	ALKA- LINITY (MG/L AS (00410)	SULFATE DIS- SOLVED (MG/L) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L) (00940)
OCT 10...	470	180	53	39	.7	1.2	200	480	54
NOV 07...	470	180	52	38	.6	1.5	190	470	54
DEC 03...	460	180	50	38	.6	1.3	200	460	52
JAN 16...	480	190	53	42	.7	1.3	210	510	61
FEB 28...	510	190	56	44	.7	1.1	200	490	60
MAR 27...	530	190	56	45	.7	1.2	180	500	58
MAY 01...	550	200	55	42	.7	1.2	180	520	58
MAY 29...	550	200	57	42	.7	1.1	180	500	58
JUN 26...	520	190	57	45	.7	1.3	190	500	61
JUL 24...	480	180	52	40	.7	1.3	180	450	53
AUG 28...	840	320	62	46	.6	2.2	210	700	73
SEP 25...	530	200	55	45	.7	1.6	200	520	61

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS STO2) (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 10...	.5	14	954	945	.66	.68	.100	.060	.24
NOV 07...	.4	14	992	927	.60	.62	.060	.060	.49
DEC 03...	.4	13	971	918	.73	.62	.020	.010	.47
JAN 16...	.5	14	1060	1000	.61	.61	.080	.040	.79
FEB 28...	.4	14	987	978	.47	.50	.000	.030	.32
MAR 27...	.5	13	1040	974	.47	.45	.020	.000	.48
MAY 01...	.7	13	1050	1000	.44	.45	.000	.000	.79
29...	.3	14	1030	982	.29	.34	.060	.100	.38
JUN 26...	.7	14	1040	985	.44	.40	.000	.000	.52
JUL 24...	.5	15	956	902	.51	.51	.000	.000	.53
AUG 28...	.5	19	6900	1350	.83	.83	.050	.000	.91
SEP 25...	.5	15	1300	1020	.58	.48	.000	.020	.67

DATE	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHOPH OSPHATE DISSOL. (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 (MG/L AS C) (00689)
OCT 10...	1.0	.000	.000	40	<10	--	4.2	3.7	.3
NOV 07...	1.2	.010	.010	50	<10	--	4.5	2.8	.3
DEC 03...	1.2	.000	.000	40	<10	20	--	9.6	.4
JAN 16...	1.5	.040	.000	50	180	--	6.3	7.7	--
FEB 28...	.79	.050	.000	50	<10	--	2.1	2.4	.9
MAR 27...	.97	.030	.000	60	<10	20	--	5.6	--
MAY 01...	1.2	.020	.000	50	<10	--	4.4	1.6	--
29...	.73	.010	.000	50	10	--	6.0	4.1	.2
JUN 26...	.96	.010	.000	60	<10	10	--	10	.5
JUL 24...	1.0	.020	.000	60	<10	--	--	15	.6
AUG 28...	1.8	.240	.000	60	1200	--	--	8.1	.4
SEP 25...	1.3	.020	.000	40	<10	30	--	3.6	.3

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
DEC 03...	1220	2	1	400	20	40	0	<1	10	0
JAN 16...	1315	--	--	--	--	50	--	--	--	--
MAR 27...	1200	0	0	200	20	60	0	<1	20	0
MAY 01...	1230	--	--	--	--	50	--	--	--	--
JUN 26...	1300	0	1	100	20	60	0	<1	0	10
JUL 24...	1130	--	--	--	--	60	--	--	--	--
SEP 25...	1230	1	1	100	30	40	0	<1	10	0

TULAROSA VALLEY BASIN
08481500 RIO TULAROSA NEAR BENT, NM -- Continued
WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 03...	1	<3	0	2	400	<10	5	0	40	20
JAN 16...	--	--	--	--	--	180	--	--	--	--
MAR 27...	1	<3	2	0	530	<10	3	2	40	20
MAY 01...	--	--	--	--	--	<10	--	--	--	--
JUN 26...	0	<3	6	1	330	<10	4	0	30	10
JUL 24...	--	--	--	--	--	<10	--	--	--	--
SEP 25...	0	<3	5	0	420	<10	2	1	60	30

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 RECOV- ERABLE (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 03...	.0	.0	2	0	1	1	0	0	0	<3
JAN 16...	--	--	--	--	--	--	0	--	--	--
MAR 27...	.0	.0	4	0	1	1	0	0	10	4
MAY 01...	--	--	--	--	--	--	0	--	--	--
JUN 26...	.0	.0	5	3	1	1	0	0	20	<3
JUL 24...	--	--	--	--	--	--	5	--	--	--
SEP 25...	.1	.0	6	1	1	1	0	0	20	3

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90) (80060)	RADIUM 226, DIS- SOLVED (PCI/L AS RADON METHOD (09511)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L) (80020)
OCT 10...	1215	<16	<.4	<5.9	.8	<6.0	.8	.05	2.8
MAY 01...	1230	<17	<.4	<5.9	<.4	<5.9	<.4	.06	3.0

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
10...	1215	830	260
NOV			
07...	1145	31	100
DEC			
03...	1220	5	58
JAN			
16...	1315	8	45
FEB			
28...	1230	4	30
MAR			
27...	1200	12	35
MAY			
01...	1230	10	120
29...	1245	44	210
JUN			
26...	1300	63	880
JUL			
24...	1130	130	1500
AUG			
28...	1230	200	1400
SEP			
25...	1230	48	110

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 7,79	MAR 27,80	MAY 29,80	JUN 26,80	SEP 25,80				
TIME	1145	1200	1245	1300	1230				
TOTAL CELLS/ML	340	710	310	270	630				
DIVERSITY: DIVISION	0.0	0.1	0.0	0.0	1.0				
..CLASS	0.0	0.1	0.0	0.0	1.0				
..ORDER	0.2	0.1	0.0	0.0	1.6				
...FAMILY	2.1	1.9	1.6	1.4	2.5				
....GENUS	2.1	2.0	1.6	1.4	2.7				
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT			
CHLOROPHYTA (GREEN ALGAE)									
..CHLOROPHYCEAE									
...CHLOROCOCCALES									
...COELASTRACEAE									
....COELASTRUM	--	-	--	-	--	-	210# 33		
...OOCYSTACEAE									
....ANKISTRODESMUS	--	-	--	-	--	-	13 2		
....SELENASTRUM	--	-	--	-	--	-	13 2		
...SCENEDESMACEAE									
....SCENEDESMUS	--	-	--	-	--	-	51 8		
..VOLVOCALES									
...CHLAMYDOMONADACEAE									
....CHLAMYDOMONAS	--	-	--	-	--	-	13 2		
CHRYSTOPHYTA									
..BACILLARIOPHYCEAE									
..CENTRALES									
...COSCINODISCACEAE									
....CYCLOTELLA	13	4	--	-	--	-	26 4		
....MELOSIRA	--	-	--	-	--	-	150# 24		
..PENNIALES									
...ACHNANTHACEAE									
....ACHNANTHES	77#	23	390#	55	180#	58	150# 57	-- -	
....RHOICOSPHENIA	--	-	7	1	--	-	--	-	
...CYMBELLACEAE									
....CYMBELLA	--	-	--	-	77#	25	--	-	
..FRAGILARIACEAE									
....SYNEDRA	--	-	14	2	--	-	--	-	
..GOMPHONEMATACEAE									
....GOMPHONEMA	26	8	35	5	13	4	--	-	
...NAVICULACEAE									
....NAVICULA	140#	42	130#	19	26	8	77#	29	77 12
...NITZSCHACEAE									
....NITZSCHIA	64#	19	84	12	13	4	39	14	39 6
...SURIRELLACEAE									
....SURIRELLA	13	4	42	6	--	-	--	-	39 6
EUGLENOPHYTA (EUGLENOIDS)									
..EUGLENOPHYCEAE									
..EUGLENALES									
...EUGLENACEAE									
....EUGLENA	--	-	7	1	--	-	--	-	-- -

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

TULAROSA VALLEY BASIN
08481500 RIO TULAROSA NEAR BENT, NM -- Continued
WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	PERIPHYTON						SAMPLING METHOD
		LENGTH OF EXPO- SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00022)	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)	
NOV 07...	1145	13	6.93	6.61	.950	.000	337	Polyethylene strip
DEC 03...	1220	25	7.24	6.93	.460	.000	674	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (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 10...	1215	13	13.5	27	.95	72
NOV 07...	1145	14	11.0	24	.91	56
DEC 03...	1220	14	7.0	45	1.7	64
JAN 16...	1315	13	9.0	40	1.4	70
FEB 28...	1230	16	12.0	159	6.9	57
MAR 27...	1200	15	10.0	27	1.1	74
MAY 01...	1230	15	16.0	44	1.8	34
29...	1245	11	17.0	50	1.5	66
JUN 26...	1300	8.6	21.5	37	.86	66
JUL 24...	1130	12	18.0	33	1.1	80
AUG 28...	1230	6.7	19.0	660	12	73
SEP 25...	1230	10	20.0	35	.94	53

SAN JUAN RIVER BASIN

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 mi² (3,190 km²), approximately.

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

GAGE.--Water-stage recorder. Altitude of gage is 6,090 ft (1,856 m), from river-profile map.

REMARKS.--Records good except those for winter period or period of no gage height record Feb. 22 to Mar. 29, which are poor. Diversions for irrigation of about 11,000 acres (45 km²) 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 ft³/s (17.90 m³/s), 457,900 acre-ft/yr (565 hm³/yr) prior to completion of Azotea tunnel.

10 years (water years 1971-80), 576 ft³/s (16.31 m³/s), 417,300 acre-ft/yr (515 hm³/yr) since completion of Azotea tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,730 ft³/s (276 m³/s) Sept. 6, 1970, gage height, 8.34 ft (2.542 m), from rating curve extended above 6,000 ft³/s (170 m³/s) on basis of slope-area measurement of peak flow; minimum, about 5 ft³/s (0.1 m³/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.--Peak discharges above base of 2,500 ft³/s (71 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Apr. 22	0530	4,570 129	6.13 1.868	June 10	0630	*5,110 145	6.38 1.945
May 23	0830	3,740 106	5.68 1.731				

Minimum daily, 85 ft³/s (2.41 m³/s) Nov. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99	120	100	110	130	330	351	1930	2440	1750	338	185
2	97	106	110	120	130	320	374	1870	2350	1670	320	162
3	97	106	130	100	140	300	374	1660	2350	1530	325	148
4	95	115	130	100	140	290	524	1640	2580	1410	291	132
5	93	113	140	110	120	280	760	1690	2870	1280	220	122
6	95	113	130	110	120	270	1080	1820	3090	1160	190	125
7	89	118	130	120	130	260	1140	1960	2850	1070	176	145
8	87	128	140	120	130	240	994	2440	2820	1120	165	188
9	91	130	140	120	120	220	1150	2170	3550	1050	204	228
10	91	128	130	100	120	230	1460	1810	4310	951	188	464
11	93	115	140	100	130	250	1640	1590	3730	898	173	1390
12	91	108	140	120	130	240	1190	1530	3870	845	167	600
13	93	95	120	140	130	240	1200	1310	3730	774	188	422
14	91	102	100	150	140	290	1170	1260	3440	781	182	356
15	91	108	110	160	170	350	1720	1460	3090	702	198	312
16	93	106	120	160	190	400	2090	1480	2880	644	235	275
17	93	104	120	150	200	340	2270	1450	2700	582	195	249
18	95	108	110	140	210	360	2310	1550	3010	547	179	231
19	97	118	110	130	230	400	2610	1660	3270	524	162	214
20	102	125	120	120	250	450	2740	1960	3190	501	145	204
21	153	115	130	100	260	540	2790	2280	2850	463	138	185
22	224	100	130	110	270	580	3550	3120	2670	448	130	179
23	162	118	130	110	260	520	3140	3320	2610	417	174	167
24	165	100	120	110	260	520	2410	3200	2580	427	490	162
25	159	138	120	120	260	500	1780	2440	2550	407	474	159
26	151	167	130	130	270	410	1720	2170	2400	402	356	156
27	140	148	120	140	300	400	1640	2170	2270	388	296	153
28	135	110	120	130	320	350	1770	2180	2200	369	275	148
29	132	85	130	110	350	330	1930	2370	1900	356	242	145
30	130	90	120	90	---	347	2010	2400	1810	351	218	142
31	128	---	100	120	---	443	---	2440	---	338	207	---
TOTAL	3552	3437	3820	3750	5610	11000	49887	62330	85960	24165	7241	7748
MEAN	115	115	123	121	193	355	1663	2011	2865	780	234	258
MAX	224	167	140	160	350	580	3550	3320	4310	1750	490	1390
MIN	87	85	100	90	120	220	351	1260	1810	338	130	122
AC-FT	7050	6820	7580	7440	11130	21820	98950	123600	170500	47930	14360	15370
CAL YR 1979	TOTAL	383506	MEAN	1051	MAX	5610	MIN 85	AC-FT	760700			
WTR YR 1980	TOTAL	268500	MEAN	734	MAX	4310	MIN 85	AC-FT	532600			

NOTE: NO GAGE-HEIGHT RECORD FEB. 22 TO MAR. 29.

SAN JUAN RIVER BASIN

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 mi²

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 except those for winter period which are poor. Diversions for irrigation of about 2,800 acres (11 km²) above station. Several observations of specific conductance and water temperature were obtained and are published in Water Resources Data for Colorado.

AVERAGE DISCHARGE.--18 years, 376 ft³/s (10.65 m³/s), 272,400 acre-ft/yr (336 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 8,370 ft³/s (237 m³/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 ft³/s (125 m³/s) on basis of slope-area measurement of peak flow; minimum, 11 ft³/s (0.31 m³/s) Dec. 9, 1963, Oct. 1, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods occurred Sept. 5 or 6, 1909; Oct. 5, 1911.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42 m³/s) and maximum (*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft ³ /s)	(m ³ /s)	(ft)	(m)			(ft ³ /s)	(m ³ /s)	(ft)	(m)
Apr. 22	unknown	*6,140	174	5.80	1.768	Sept. 11	0500	2,040	57.8	3.67	1.119
May 23	0430	3,300	93.5	4.48	1.366						

Minimum daily, 36 ft³/s (1.02 m³/s) Jan. 11

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	70	50	50	60	177	162	2150	2150	1190	99	110
2	63	66	55	55	60	165	184	1970	2020	1020	106	101
3	59	65	60	46	60	153	180	1740	2020	892	113	94
4	59	66	60	46	65	150	231	1890	2190	804	155	88
5	59	66	60	50	65	142	322	2060	2400	712	115	84
6	57	65	60	50	63	139	504	2070	2580	628	106	86
7	59	66	60	55	66	136	656	2440	2430	576	99	108
8	57	68	55	55	70	120	612	2920	2350	564	113	122
9	57	70	55	55	63	116	704	2720	2770	510	122	132
10	57	70	55	44	61	123	864	2140	3020	455	110	640
11	55	65	55	36	65	131	856	1960	2980	420	99	1460
12	57	61	55	46	66	128	776	1770	2950	385	90	740
13	57	55	50	55	66	118	800	1410	2820	350	101	528
14	57	57	48	60	72	136	800	1330	2610	321	99	405
15	55	57	50	65	87	180	1200	1670	2390	285	192	326
16	59	57	55	65	100	204	1500	1710	2180	253	167	273
17	59	57	55	65	106	168	1600	1620	2060	221	125	233
18	61	59	50	65	113	177	1800	1770	2220	194	110	205
19	61	66	50	65	264	208	2100	1790	2250	177	106	188
20	63	65	50	60	212	208	2500	2040	2080	161	101	167
21	100	57	50	50	156	264	3100	2430	1920	149	94	152
22	126	57	50	50	139	304	4000	2870	1760	140	82	143
23	96	55	55	50	136	268	3000	2980	1770	135	98	135
24	91	70	55	50	136	264	2460	2900	1800	132	316	130
25	91	65	55	55	136	264	1820	2250	1780	138	285	125
26	89	66	55	60	136	204	2020	1960	1700	140	233	120
27	87	60	55	60	139	215	1970	1860	1640	132	188	115
28	83	48	55	60	165	190	2210	1850	1520	120	158	110
29	74	48	55	65	180	180	2290	2070	1350	113	135	108
30	76	50	55	65	---	184	2400	2110	1210	108	125	104
31	74	---	50	55	---	212	---	2160	---	104	118	---
TOTAL	2159	1847	1678	1708	3107	5628	43621	64610	64920	11529	4160	7332
MEAN	69.6	61.6	54.1	55.1	107	182	1454	2084	2164	372	134	244
MAX	126	70	60	65	264	304	4000	2980	3020	1190	316	1460
MIN	55	48	48	36	60	116	162	1330	1210	104	82	84
AC-FT	4280	3660	3330	3390	6160	11160	86520	128200	128800	22870	8250	14540
CAL YR 1979	TOTAL	299122	MEAN	820	MAX	4630	MIN	48	AC-FT	593300		
WTR YR 1980	TOTAL	212299	MEAN	580	MAX	4000	MIN	36	AC-FT	421100		

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 mi² (1,320 km²), approximately.

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for some periods, published in WSP 1733.

GAGE.--Water-stage recorder. Datum of gage is 6,143.58 ft (1,872.563 m) 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 km²) above station. Several observations of specific conductance and water temperature were obtained and are published in Water Resources Data for Colorado.

AVERAGE DISCHARGE.--30 years, 216 ft³/s (6.117 m³/s), 156,500 acre-ft/yr (193 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,400 ft³/s (181 m³/s) July 27, 1957, gage height, 8.95 ft (2.728 m), from rating curve extended above 5,100 ft³/s (140 m³/s); minimum determined, 5.6 ft³/s (0.16 m³/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, 2,320 ft³/s (65.7 m³/s) at 0530 hours Apr. 23, gage height, 6.69 ft (2.039 m); minimum daily, 50 ft³/s (1.42 m³/s) Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	375	73	88	60	80	188	170	1540	389	605	142	142
2	370	73	84	65	75	177	207	1440	379	769	165	134
3	367	74	79	55	80	174	203	1430	358	1100	176	128
4	361	71	78	55	80	164	357	1460	359	1120	186	139
5	364	72	75	60	80	161	494	1440	456	1110	176	151
6	359	72	72	65	85	157	694	1400	687	1110	173	159
7	366	75	71	65	95	157	685	1490	706	1120	179	164
8	363	81	71	65	98	127	488	1660	698	994	179	168
9	365	81	70	65	90	114	575	1530	851	581	186	298
10	363	70	69	55	89	127	706	1160	1310	355	187	361
11	358	64	67	50	92	156	782	1100	1550	239	169	451
12	351	65	65	60	93	137	569	1020	1630	204	174	187
13	359	66	65	75	94	110	521	893	1650	221	200	178
14	379	64	55	85	116	124	592	858	1670	223	208	171
15	374	64	55	100	182	205	941	966	1660	159	321	166
16	281	65	60	95	191	263	1180	959	1630	144	251	160
17	234	59	60	90	190	200	1350	893	1400	146	236	155
18	228	64	55	85	231	201	1540	902	1210	145	230	152
19	199	69	60	80	483	292	1730	885	1440	145	227	155
20	198	72	65	75	452	316	1800	848	1440	150	201	149
21	306	68	65	60	293	442	1250	840	1430	146	187	143
22	203	70	60	65	232	580	1810	825	1450	155	173	136
23	151	63	59	65	173	436	2030	773	1470	157	279	132
24	137	64	60	65	135	370	1840	739	1400	163	344	133
25	110	75	60	70	114	322	1540	667	1410	195	315	144
26	80	65	60	75	106	210	1540	631	1390	185	248	132
27	75	71	60	80	109	242	1550	569	1400	150	221	142
28	75	56	60	75	129	266	1550	497	1400	143	173	139
29	75	57	66	65	168	187	1620	474	1280	138	154	137
30	75	71	60	55	---	249	1630	434	886	148	149	130
31	76	---	55	70	---	281	---	403	---	134	150	---
TOTAL	7977	2054	2029	2150	4435	7135	31944	30726	34989	12354	6359	5136
MEAN	257	68.5	65.5	69.4	153	230	1065	991	1166	399	205	171
MAX	379	81	88	100	483	580	2030	1660	1670	1120	344	451
MIN	75	56	55	50	75	110	170	403	358	134	142	128
AC-FT	15820	4070	4020	4260	8800	14150	63360	60950	69400	24500	12610	10190
CAL YR 1979	TOTAL	206119	MEAN	565	MAX	2110	MIN	49	AC-FT	408800		
WTR YR 1980	TOTAL	147288	MEAN	402	MAX	2030	MIN	50	AC-FT	292100		

SAN JUAN RIVER BASIN

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 mi² (150 km²), approximately.

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for some periods, published in WSP 1733.

GAGE.--Water-stage recorder. Altitude of gage is 6,160 ft (1,878 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. 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.--30 years, 30.3 ft³/s (0.858 m³/s), 21,950 acre-ft/yr (27.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,980 ft³/s (56.1 m³/s) Sept. 6, 1970, gage height, 4.62 ft

(1.408 m), from rating curve extended above 160 ft³/s (4.53 m³/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 ft³/s

(0.017 m³/s) Nov. 27, 1959.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 180 ft³/s (5.1 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 20	0630	*514 14.6	2.62 0.799	Sept. 10	2330	469 13.3	2.58 0.786

Minimum daily, 3.0 ft³/s (0.085 m³/s) Dec. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	6.3	5.5	5.0	10	82	8.5	33	51	64	68	76
2	68	6.5	6.0	4.0	13	65	11	32	53	66	71	76
3	69	6.5	7.0	4.0	17	62	18	31	54	69	72	71
4	67	6.2	7.0	4.4	14	71	23	34	53	66	68	68
5	67	6.1	6.5	4.4	9.8	67	26	46	56	68	64	69
6	63	5.9	6.5	3.8	8.1	54	28	48	62	71	67	77
7	62	6.3	7.0	3.8	7.9	48	34	48	64	73	69	77
8	63	9.6	7.5	4.4	8.2	37	15	45	63	75	69	79
9	63	10	7.0	4.5	8.1	30	20	45	61	68	67	132
10	64	6.4	7.0	8.0	6.7	36	27	43	55	68	66	181
11	62	5.0	6.5	14	6.1	45	39	39	56	71	65	158
12	64	6.1	6.3	18	6.6	45	17	35	57	73	66	66
13	65	6.1	5.5	57	7.2	32	13	32	56	76	70	65
14	66	6.1	5.5	52	8.9	32	14	35	58	75	70	63
15	63	6.3	5.0	88	39	54	29	62	57	73	98	61
16	62	6.1	4.4	59	71	55	42	59	58	73	73	61
17	60	6.5	4.0	33	75	30	43	52	58	76	73	59
18	59	6.3	3.4	21	74	26	43	48	55	71	74	58
19	61	6.8	3.0	19	213	35	47	41	56	71	73	55
20	64	7.0	3.2	34	329	31	51	43	59	71	70	55
21	99	6.0	3.4	23	139	35	58	47	66	73	67	56
22	66	5.0	4.0	13	98	39	64	41	66	68	68	56
23	52	6.0	4.4	11	91	24	58	55	64	71	86	57
24	50	5.0	4.6	9.7	64	18	43	47	60	72	105	57
25	46	7.0	4.6	14	42	16	25	49	61	74	109	57
26	38	6.0	5.0	15	35	14	22	49	64	71	92	57
27	30	5.5	5.5	10	42	14	26	48	61	70	85	57
28	20	4.4	5.0	9.4	64	14	29	48	58	69	79	59
29	10	4.6	4.6	9.1	81	11	39	42	62	68	78	56
30	7.0	5.0	4.6	29	---	8.9	61	46	63	70	76	54
31	6.3	---	4.6	15	---	10	---	46	---	68	76	---
TOTAL	1704.3	187.6	164.1	599.5	1588.6	1140.9	973.5	1369	1767	2192	2334	2173
MEAN	55.0	6.25	5.29	19.3	54.8	36.8	32.5	44.2	58.9	70.7	75.3	72.4
MAX	99	10	7.5	88	329	82	64	62	66	76	109	181
MIN	6.3	4.4	3.0	3.8	6.1	8.9	8.5	31	51	64	64	54
AC-FT	3380	372	325	1190	3150	2260	1930	2720	3500	4350	4630	4310

CAL YR 1979 TOTAL 15967.0 MEAN 43.7 MAX 263 MIN 3.0 AC-FT 31670
WTR YR 1980 TOTAL 16193.5 MEAN 44.2 MAX 329 MIN 3.0 AC-FT 32120

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 mi² (8,370 km²), 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 km³) between elevation 5,720 ft (1,743 m) upstream toe of dam and 6,085 ft (1,855 m) crest of spillway. Usable capacity 1,696,000 acre-ft (2.09 km³) above elevation 5,774.9 ft (1,760.19 m) minimum operating level. Dead storage below elevation 5,774.9 ft (1,760.19 m) is 12,600 acre-ft (15.5 hm³). Figures given herein are usable contents. Reservoir is used for irrigation storage, river regulation, desilting, flood control, and recreation.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 1,731,000 acre-ft (2.13 km³) 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 hm³) Mar. 10, 11, 1965, elevation, 5,906.36 ft (1,800.259 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 1,670,000 acre-ft (2.06 km³) July 11-15, elevation, 6,083.30 ft (1,854.190 m); minimum daily contents, 1,017,000 acre-ft (1.25 km³) Mar. 31, Apr. 1, 2, elevation, 6,031.06 ft (1,838.267 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 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1362000	1336000	1315000	1230000	1155000	1099000	1017000	1181000	1367000	1637000	1647000	1591000
2	1360000	1336000	1312000	1228000	1151000	1097000	1017000	1181000	1374000	1641000	1646000	1588000
3	1358000	1335000	1309000	1225000	1149000	1095000	1018000	1191000	1380000	1647000	1643000	1586000
4	1356000	1334000	1306000	1223000	1147000	1093000	1019000	1195000	1386000	1651000	1641000	1584000
5	1355000	1333000	1303000	1219000	1144000	1091000	1021000	1211000	1394000	1655000	1639000	1582000
6	1353000	1332000	1303000	1216000	1142000	1088000	1023000	1204000	1402000	1659000	1637000	1581000
7	1352000	1332000	1300000	1214000	1139000	1086000	1026000	1209000	1411000	1661000	1635000	1580000
8	1351000	1331000	1297000	1212000	1136000	1083000	1030000	1215000	1419000	1664000	1632000	1578000
9	1350000	1331000	1294000	1209000	1133000	1081000	1032000	1225000	1428000	1668000	1630000	1576000
10	1350000	1330000	1292000	1207000	1131000	1079000	1036000	1230000	1441000	1669000	1628000	1576000
11	1349000	1330000	1289000	1205000	1128000	1072000	1042000	1236000	1453000	1670000	1626000	1581000
12	1348000	1330000	1286000	1203000	1125000	1068000	1047000	1240000	1467000	1670000	1624000	1583000
13	1348000	1330000	1284000	1201000	1122000	1064000	1050000	1243000	1479000	1670000	1621000	1583000
14	1347000	1329000	1281000	1198000	1120000	1060000	1052000	1246000	1490000	1670000	1619000	1582000
15	1346000	1329000	1278000	1196000	1118000	1052000	1057000	1249000	1501000	1670000	1617000	1582000
16	1345000	1329000	1275000	1194000	1117000	1050000	1064000	1255000	1513000	1669000	1615000	1580000
17	1344000	1328000	1272000	1192000	1116000	1049000	1072000	1263000	1521000	1669000	1609000	1579000
18	1344000	1328000	1269000	1189000	1115000	1046000	1080000	1265000	1529000	1668000	1611000	1578000
19	1342000	1328000	1266000	1187000	1113000	1042000	1090000	1269000	1540000	1667000	1609000	1576000
20	1342000	1328000	1264000	1185000	1117000	1040000	1101000	1274000	1549000	1666000	1607000	1575000
21	1342000	1328000	1261000	1183000	1118000	1037000	1111000	1282000	1558000	1665000	1604000	1573000
22	1342000	1328000	1256000	1180000	1117000	1035000	1122000	1291000	1567000	1663000	1602000	1571000
23	1342000	1327000	1254000	1177000	1115000	1033000	1136000	1301000	1576000	1661000	1601000	1569000
24	1341000	1326000	1252000	1175000	1113000	1029000	1152000	1309000	1584000	1660000	1600000	1566000
25	1341000	1325000	1249000	1172000	1112000	1027000	1152000	1319000	1593000	1659000	1600000	1565000
26	1340000	1324000	1247000	1170000	1109000	1025000	1155000	1327000	1602000	1658000	1600000	1563000
27	1340000	1323000	1245000	1166000	1106000	1022000	1161000	1336000	1610000	1656000	1599000	1561000
28	1339000	1322000	1241000	1164000	1104000	1020000	1164000	1341000	1618000	1655000	1598000	1559000
29	1339000	1320000	1238000	1162000	1101000	1019000	1170000	1347000	1620000	1653000	1596000	1557000
30	1338000	1318000	1237000	1160000	---	1018000	1175000	1354000	1632000	1651000	1595000	1555000
31	1337000	---	1234000	1157000	---	1017000	---	1361000	---	1649000	1593000	---
MAX	1362000	1336000	1315000	1230000	1155000	1099000	1175000	1361000	1632000	1670000	1647000	1591000
MIN	1337000	1318000	1234000	1157000	1101000	1017000	1017000	1181000	1367000	1637000	1593000	1555000
(+)	6059.47	6057.91	6051.02	6044.35	6039.21	6031.07	6045.96	6061.33	6080.83	6081.95	6078.16	6075.59
(+)	-27000	-19000	-84000	-77000	-56000	-84000	+158000	+186000	+271000	+17000	-56000	-38000
CAL YR 1979	MAX	1559000	MIN	1160000	(+)	+38000						
WTR YR 1980	MAX	1670000	MIN	1017000	(+)	+191000						

(+) 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 N $\frac{1}{2}$ 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 mi² (8,440 km²), 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 hm³). The correct value is 1,455,000 acre-ft (1,790 hm³).

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 ft³/s (36.93 m³/s), 944,700 acre-ft/yr (1,160 hm³/yr)

prior to closure of Navajo Dam.

18 years (water years 1963-80), 1,101 ft³/s (31.18 m³/s), 797,700 acre-ft/yr (984 hm³/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 mi² (80 km²) 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 km²) 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 ft³/s (535 m³/s) July 27, 1957, gage height, 11.00 ft (3.353 m), site and datum then in use; minimum determined, 8 ft³/s (0.23 m³/s) Feb. 28, 1963. Maximum discharge since construction of Navajo Dam in 1962, 6,500 ft³/s (184 m³/s) June 20, 1965, gage height, 4.57 ft (1.393 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,160 ft³/s (89.5 m³/s) May 7, gage height, 5.33 ft (1.625 m); minimum daily, 278 ft³/s (7.87 m³/s) Nov. 12-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1230	618	1630	1660	1620	2070	810	3040	1300	799	1260	1250
2	1220	618	1640	1660	1630	2070	621	3040	1290	812	1260	1250
3	1200	618	1680	1650	1630	2100	566	3040	1300	817	1260	1260
4	1190	618	1690	1650	1630	2090	615	3040	1310	834	1260	1260
5	1190	618	1710	1650	1630	2090	628	3050	1310	849	1260	1260
6	1090	612	1710	1650	1630	2100	624	3060	1320	856	1270	1260
7	895	612	1710	1650	1630	2160	649	3070	1330	875	1280	1270
8	787	612	1710	1630	1630	2270	661	2970	1340	887	1280	1270
9	576	570	1700	1640	1640	2280	666	2490	1420	907	1290	1280
10	564	370	1700	1660	1640	2540	676	2370	1530	912	1300	1290
11	570	310	1700	1640	1640	2920	692	2370	1510	929	1310	1270
12	580	278	1700	1640	1640	2860	702	2280	1530	951	1310	1230
13	606	278	1700	1640	1640	2810	715	2090	1540	962	1320	1190
14	813	278	1700	1640	1660	2810	712	1880	1550	970	1320	1190
15	813	278	1700	1640	1660	2810	804	1670	1560	975	1330	1190
16	820	278	1690	1640	1660	2800	976	1520	1560	991	1330	1190
17	740	278	1690	1640	1660	2780	1160	1480	1570	1010	1340	1190
18	660	278	1690	1640	1690	2780	1350	1480	1370	1020	1350	1180
19	660	278	1690	1640	1700	2780	1590	1420	1070	1020	1350	1180
20	660	278	1690	1640	1720	2770	1950	1290	1030	1040	1360	1160
21	660	405	1700	1630	1690	2770	2320	1240	995	1050	1360	1160
22	654	552	1690	1630	1690	2770	2790	1250	1010	1060	1310	1170
23	654	552	1680	1630	1690	2770	2910	1260	983	1070	1200	1160
24	654	552	1680	1630	1690	2630	2920	1270	781	1080	1210	1170
25	648	552	1680	1630	1870	2360	2960	1270	694	1080	1210	1160
26	618	642	1680	1630	2040	2250	2980	1280	713	1100	1220	1160
27	540	796	1680	1630	2070	2100	2980	1290	733	1110	1230	1170
28	540	1000	1680	1630	2070	1760	2970	1290	750	1110	1230	1160
29	540	1250	1660	1620	2070	1320	2960	1300	768	1160	1240	1160
30	570	1500	1660	1620	---	1320	3000	1300	777	1230	1240	1160
31	612	---	1660	1620	---	1170	---	1300	---	1260	1250	---
TOTAL	23554	16479	52280	50800	49860	73110	45957	60700	35944	30726	39740	36250
MEAN	760	549	1686	1639	1719	2358	1532	1958	1198	991	1282	1208
MAX	1230	1500	1710	1660	2070	2920	3000	3070	1570	1260	1360	1290
MIN	540	278	1630	1620	1620	1170	566	1240	694	799	1200	1160
AC-FT	46770	32690	103700	100800	98900	145000	91160	120400	71290	60950	78820	71900
(+)	9390	0	0	0	0	0	7430	17640	19420	15450	19960	18830

CAL YR 1979 TOTAL 864913 MEAN 2370 MAX 5480 MIN 278 AC-FT 1716000
WTR YR 1980 TOTAL 515400 MEAN 1408 MAX 3070 MIN 278 AC-FT 1022000

(+) DISCHARGE, IN ACRE-FT, THROUGH NAVAJO 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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
NOV 30...	0800	1500	225	7.9	-8.0	6.5	16	9.9	23	89	18	27
FEB 04...	1245	1650	180	8.5	10.0	7.0	15	11.8	21	83	17	25
MAR 31...	1305	1080	240	8.3	2.0	6.0	16	11.5	26	89	19	27
JUL 10...	1130	884	255	7.8	33.0	10.0	8.4	11.4	14	96	22	29
SEP 30...	1330	1160	443	8.4	26.0	10.0	30	13.0	--	150	51	43

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 (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)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
NOV 30...	5.3	11	.5	2.1	71	40	2.1	.2	11	138	142	.23
FEB 04...	4.9	11	.5	1.6	66	34	1.6	.3	11	132	129	.09
MAR 31...	5.2	15	.7	1.8	70	50	2.8	.2	10	183	154	.08
JUL 10...	5.7	13	.6	1.8	74	51	.7	.2	9.6	205	156	.03
SEP 30...	9.3	24	.9	2.5	95	100	5.7	.3	9.3	229	251	.00

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, ORTHOPH- OSPHATE DISSOL. (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 (MG/L AS C) (00689)
NOV 30...	.21	.100	.100	.56	.89	.140	.080	40	10	6	7.4	.3
FEB 04...	.06	.010	.010	.27	.37	.040	.000	30	10	3	5.4	.5
MAR 31...	.06	.010	.000	.78	.87	.040	.010	30	<10	30	4.6	.2
JUL 10...	.00	.000	.040	.51	.54	.050	.000	0	30	3	4.5	.2
SEP 30...	.01	.590	.110	.51	1.1	.210	.050	30	30	7	4.5	.3

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
NOV 30...	0800	2	1	300	60	40	0	<1	0	0
FEB 04...	1245	2	1	0	60	30	0	<1	0	0
MAR 31...	1305	2	0	200	60	30	0	<1	0	0
JUL 10...	1130	2	1	100	70	0	0	2	10	0
SEP 30...	1330	2	1	200	60	30	0	<1	10	0

SAN JUAN RIVER BASIN

09355500 SAN JUAN RIVER NEAR ARCHULETA, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
NOV 30...	0	<3	5	2	650	10	3	8	20
FEB 04...	0	<3	0	0	360	10	4	0	20
MAR 31...	0	<3	20	0	320	<10	29	0	0
JUL 10...	1	<3	3	3	200	30	0	0	10
SEP 30...	3	<3	43	5	4800	30	20	1	270

DATE	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)	SELE- NIUM, TOTAL SOLVED (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 2N) (01092)	ZINC, DIS- SOLVED (UG/L AS 2N) (01090)
NOV 30...	6	.0	.1	0	1	0	0	30	10
FEB 04...	3	.1	.0	1	1	0	0	30	<3
MAR 31...	30	.1	.0	1	1	0	0	50	<3
JUL 10...	3	1.0	.4	1	1	0	0	20	7
SEP 30...	7	.1	.0	1	1	0	0	80	20

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. (UG/L AS U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. (PCI/L AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS YT-90) (80050)	GROSS BETA, SUSP. (PCI/L AS 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)
NOV 30...	0800	<1.7	.9	2.6	1.0	2.5	1.0	.05	--	.39
MAR 31...	1305	2.0	.9	3.1	.6	3.1	.6	.16	--	.55
SEP 30...	1330	4.1	2.0	4.1	1.9	3.7	1.8	.05	.9	--

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JUL 10...	1130	884	10.0	10	80
AUG 04...	1215	1200	10.5	4	92
SEP 30...	1330	1160	10.0	7	92

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 mi² (4,400 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

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 ft³/s (141 m³/s) Mar. 8, 1979, gage height, 3.70 ft (1.128 m), from rating curve extended above 620 ft³/s (18 m³/s); maximum gage height, 4.07 ft (1.241 m)

Feb. 19, 1980; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,000 ft³/s (28 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 19	1300	*3,480 98.6	4.07 1.241	Aug. 9	0646	2,410 68.3	3.86 1.177

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.02	.04	.05	.30	5.5	.21	.04	.00	.00	.00	.00
2	.00	.02	.03	.05	.20	5.0	.24	.03	.00	.00	.00	.00
3	.00	.02	.03	.05	.08	4.8	.19	.03	.00	.00	.00	.00
4	.00	.02	.03	.05	.09	4.5	.08	.01	.00	.00	.00	.00
5	.00	.02	.04	.05	.10	3.6	.05	.02	.00	.00	.00	.00
6	.00	.02	.04	.05	.10	3.1	.05	.02	.00	.00	.00	.00
7	.00	.10	.05	.05	.10	2.7	.16	.01	.00	.00	.00	.00
8	.00	.16	.05	.05	.09	2.3	.29	.02	.00	.00	.00	.00
9	.00	.09	.06	.05	.09	1.7	.26	.01	.00	.00	84	100
10	.00	.06	.06	.14	.09	1.2	.23	.01	.00	.00	.00	500
11	.00	.05	.05	.16	.09	.90	.23	.01	.00	.00	.00	50
12	.00	.05	.05	.34	.09	.65	.24	.01	.00	.00	.00	.00
13	.00	.05	.05	.26	.09	.50	.28	.02	.00	.00	.00	.00
14	.00	.05	.05	.77	.14	.30	.20	.02	.00	.00	.00	.00
15	.00	.04	.05	18	208	.20	.14	.04	.00	.00	.00	.00
16	.00	.04	.05	4.8	226	.10	.12	.03	.00	.00	.00	.00
17	.00	.04	.04	4.0	161	.05	.11	.01	.00	.00	.00	.00
18	.00	.04	.04	4.4	30	.02	.10	.02	.00	.00	.00	.00
19	.00	.06	.04	2.3	618	.02	.10	.01	.00	.00	.00	.00
20	.00	.05	.04	30	297	.04	.08	.02	.00	.00	.00	.00
21	.07	.05	.04	1.6	101	.04	.08	.02	.00	.00	.00	.00
22	.00	.05	.05	1.6	20	.04	.07	.03	.00	.00	.00	.00
23	.00	.05	.05	1.3	15	.05	.07	.02	.00	.00	.63	.00
24	.00	.05	.05	1.2	12	.05	.07	.00	.00	.00	2.9	.00
25	.00	.05	.05	1.1	10	.04	.07	.00	.00	.00	.14	.00
26	.00	.05	.04	.85	9.0	.12	.05	.01	.00	.00	.00	.00
27	.00	.05	.04	.70	7.5	.22	.05	.02	.00	.00	.00	.00
28	.00	.04	.04	.58	6.5	.26	.04	.01	.00	.00	.00	.00
29	.00	.04	.04	.92	6.0	.10	.04	.00	.00	.00	.00	.00
30	.00	.04	.04	.53	---	.12	.03	.01	.00	.00	.00	.00
31	.02	---	.05	.40	---	.14	---	.00	---	.00	.00	---
TOTAL	.09	1.47	1.38	76.40	1728.65	38.36	3.93	.51	.00	.00	87.67	650.00
MEAN	.003	.049	.045	2.46	59.6	1.24	.13	.016	.000	.000	2.83	21.7
MAX	.07	.16	.06	30	618	5.5	.29	.04	.00	.00	84	500
MIN	.00	.02	.03	.05	.08	.02	.03	.00	.00	.00	.00	.00
AC-FT	.2	2.9	2.7	152	3430	76	7.8	1.0	.00	.00	174	1290
CAL YR 1979	TOTAL	15900.81	MEAN	43.6	MAX	1380	MIN	.00	AC-FT	31540		
WTR YR 1980	TOTAL	2588.46	MEAN	7.07	MAX	618	MIN	.00	AC-FT	5130		

09356565 CANON LARGO WASH NEAR BLANCO, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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...	1345	.02	10000	8.4	7.0	11.5	--	750	350	150	92	2300
NOV 08...	1230	.18	11220	8.4	7.5	10.0	9.0	800	400	140	110	2800
DEC 03...	1130	.03	9870	7.9	6.0	1.0	9.3	530	250	75	84	2300
JAN 04...	1300	.05	8000	8.2	3.0	1.0	11.5	690	260	150	77	1700
FEB 05...	1130	.10	7600	8.2	6.0	11.5	9.6	650	290	150	68	1700
15...	0900	860	1500	7.7	--	--	--	--	--	--	--	--
MAR 03...	1230	4.7	1060	8.4	8.0	6.0	9.5	200	0	66	9.4	160
APR 04...	1130	.08	8630	8.4	13.5	19.0	8.2	800	390	180	84	1800
AUG 09...	0630	30	4000	7.2	--	--	--	--	--	--	--	--
09...	0640	215	3600	7.1	--	--	--	--	--	--	--	--

DATE	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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)
OCT 31...	36	10	470	10	400	5800	43	1.6	5.5	8920	8640
NOV 08...	43	24	480	4	400	6000	83	1.2	6.4	10200	9410
DEC 03...	43	6.2	340	0	280	4800	39	1.6	10	8890	7480
JAN 04...	28	5.3	530	0	430	3600	39	1.4	9.0	6990	5840
FEB 05...	29	5.6	450	0	370	4000	43	1.2	6.7	6670	6200
15...	--	--	--	--	--	--	--	--	--	--	--
MAR 03...	4.9	2.6	434	2	360	390	7.0	.9	6.9	729	643
APR 04...	28	7.3	470	10	400	4400	30	1.4	4.6	7540	6750
AUG 09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	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 TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
OCT 31...	.01	.060	.54	.61	.020	500	50	--	19	.1	--
NOV 08...	.01	.140	1.4	1.5	.190	630	110	--	33	--	--
DEC 03...	.03	.090	.49	.61	.010	400	80	--	16	.2	--
JAN 04...	.03	.110	.89	1.0	.030	340	40	--	4.9	.3	--
FEB 05...	.02	.120	.14	.28	.050	320	140	--	12	.8	--
15...	--	--	--	--	--	--	--	310	--	--	40
MAR 03...	.45	.090	26	26	6.700	50	40	--	9.6	230	--
APR 04...	.01	.080	.63	.72	.070	380	40	--	12	.2	--
AUG 09...	--	--	--	--	--	--	--	860	--	--	40
09...	--	--	--	--	--	--	--	680	--	--	40

09356565 CANON LARGO WASH NEAR BLANCO, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SAMPLE SOURCE (72005)
FEB 15...	0900	54	2.9	4	40
AUG 09...	0630	49	3.8	6	40
09...	0640	40	4.0	1	40

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 08...	1230	97	6600
DEC 03...	1130	83	4000
JAN 04...	1300	0	100
FEB 05...	1130	4	110
MAR 03...	1230	150	1200
APR 04...	1130	2	39

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	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)	SAMPLE SOURCE (72005)
OCT 31...	1345	.02	11.5	416	--	--	--	--	--	--	--
NOV 08...	1230	.18	10.0	1270	--	--	--	--	--	--	--
DEC 03...	1130	.03	1.0	357	--	--	--	--	--	--	--
JAN 04...	1300	.05	1.0	276	--	--	--	--	--	--	--
24...	1515	1.2	.5	5650	--	--	--	--	--	--	--
FEB 05...	1130	.10	11.5	548	--	--	--	--	--	--	--
15...	0900	860	--	369	--	--	--	--	--	--	40
MAR 03...	1230	4.7	6.0	21800	--	--	--	--	--	--	--
APR 04...	1130	.08	19.0	71800	--	--	--	--	--	--	--
MAY 06...	1045	.01	--	253	--	--	--	--	--	--	--
AUG 09...	0630	30	--	218000	--	--	--	--	--	--	40
09...	0640	215	--	202000	--	--	--	--	--	--	40
SEP 18...	0830	.00	--	--	18	55	95	99	99	100	--
18...	0835	.00	--	--	24	32	60	92	99	100	--
18...	0840	.00	--	--	21	57	97	100	--	--	--

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.--3,540 mi² (14,350 km²), 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 current year.

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 poor. 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 mi² (207 km²). 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 ft³/s (581 m³/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 ft³/s (1.42 m³/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, 4,710 ft³/s (133 m³/s) Sept. 10, gage height, 5.76 ft (1.756 m); minimum daily discharge, 130 ft³/s (3.68 m³/s) Nov. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1020	588	1630	1670	1650	2200	929	2840	1080	570	968	1050
2	992	588	1680	1660	1650	2200	742	2850	1100	582	952	1040
3	992	588	1650	1660	1650	2100	584	2860	1110	588	968	1040
4	992	606	1640	1660	1640	2100	667	2860	1100	600	976	1040
5	1000	606	1640	1650	1630	2100	678	2880	1120	624	984	1070
6	1000	612	1630	1660	1630	2100	695	2880	1140	612	992	1090
7	900	636	1630	1660	1650	2100	681	2860	1150	630	1020	1090
8	700	716	1640	1660	1670	2200	660	2860	1160	648	1010	1100
9	500	624	1630	1660	1670	2200	688	2420	1180	642	1120	1210
10	400	498	1610	1720	1710	2200	695	2220	1410	654	1100	1690
11	400	300	1630	1720	1680	2600	716	2200	1350	667	1050	1430
12	425	200	1620	1730	1680	2600	667	2160	1380	688	1000	1150
13	450	175	1600	1670	1680	2500	688	1960	1390	709	1050	1050
14	650	150	1610	1730	1710	2500	688	1760	1400	730	1000	1060
15	800	150	1600	1770	1890	2500	709	1570	1410	730	1100	1080
16	800	140	1610	1780	2160	2600	864	1390	1420	737	1050	1070
17	800	140	1620	1720	1860	2700	1000	1280	1410	751	1000	1060
18	600	130	1620	1750	1820	2770	1160	1270	1350	758	1000	1040
19	600	150	1630	1750	2200	2780	1390	1260	848	758	1050	1060
20	642	250	1630	1840	2330	2770	1710	1110	824	765	1050	1020
21	823	279	1650	1740	2060	2770	2060	1000	840	772	1100	1020
22	654	529	1650	1700	1940	2800	2550	1010	888	786	1130	1000
23	630	552	1640	1680	2000	2780	2770	1010	880	793	1020	984
24	606	558	1640	1660	2060	2720	2810	1010	674	824	1110	960
25	624	564	1640	1650	2000	2470	2860	1030	480	840	1040	942
26	624	606	1670	1640	2150	2310	2840	1030	492	848	1030	945
27	540	758	1720	1660	2170	2170	2830	1030	504	848	1030	939
28	516	888	1680	1650	2120	1990	2840	1020	522	840	1050	939
29	522	1130	1670	1700	2170	1350	2850	1040	540	848	1040	944
30	522	1340	1670	1710	---	1310	2850	1060	558	920	1050	942
31	588	---	1670	1660	---	1270	---	1060	---	960	1050	---
TOTAL	21312	15051	50850	52570	54230	71760	43871	54790	30710	22722	32090	32055
MEAN	687	502	1640	1696	1870	2315	1462	1767	1024	733	1035	1069
MAX	1020	1340	1720	1840	2330	2800	2860	2880	1420	960	1130	1690
MIN	400	130	1600	1640	1630	1270	584	1000	480	570	952	939
AC-FT	42270	29850	100900	104300	107600	142300	87070	108700	60910	45070	63650	63580
CAL YR 1979	TOTAL	847168	MEAN	2321	MAX	5390	MIN	130	AC-FT	1680000		
WTR YR 1980	TOTAL	482011	MEAN	1317	MAX	2880	MIN	130	AC-FT	956100		

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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
OCT 24...	1200	579	459	8.4	14.5	9.0	11.8	150	57	47	7.9
NOV 20...	1445	294	695	8.5	4.0	4.5	12.6	200	90	65	10
DEC 17...	1400	1630	250	8.6	7.0	7.0	10.0	130	54	40	6.7
JAN 22...	1030	1720	310	8.0	1.5	5.0	10.7	100	28	32	5.0
FEB 18...	1045	1820	325	8.2	13.0	6.0	10.2	91	0	29	4.4
MAR 18...	0930	2640	270	8.1	11.0	5.5	10.4	93	19	28	5.5
APR 06...	1300	724	400	8.5	19.0	12.0	9.5	120	36	38	6.4
MAY 07...	1500	2900	400	8.5	--	11.0	--	--	--	--	--
21...	1315	977	370	8.9	29.0	16.0	10.0	120	35	38	6.7
JUN 16...	1515	1390	312	8.3	32.0	14.0	10.0	100	34	31	6.3
JUL 24...	1630	855	342	8.6	30.0	22.0	9.1	110	29	35	6.3
AUG 26...	1630	1020	353	8.4	28.5	17.5	9.0	120	38	37	6.8
SEP 24...	1345	1010	336	8.3	19.0	11.5	10.0	110	30	34	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 (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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 24...	38	1.4	2.4	110	2	94	150	3.6	.2	10	312
NOV 20...	69	2.1	2.7	122	6	110	250	5.1	.2	9.5	480
DEC 17...	22	.8	2.1	80	6	76	80	6.6	.2	11	229
JAN 22...	25	1.1	1.7	88	0	72	79	6.4	.2	11	212
FEB 18...	28	1.3	1.8	120	0	98	--	2.5	.2	14	214
MAR 18...	21	1.0	1.6	90	0	74	55	2.5	.2	11	182
APR 06...	31	1.3	1.8	98	2	84	120	3.6	.2	10	268
MAY 07...	--	--	--	--	--	--	--	--	--	--	--
21...	27	1.1	1.9	92	6	85	91	2.9	.2	7.5	237
JUN 16...	19	.8	2.0	80	0	66	69	2.7	.2	8.8	198
JUL 24...	23	1.0	2.1	90	4	80	79	2.5	.3	9.6	223
AUG 26...	24	1.0	2.0	96	2	82	100	3.1	.2	10	225
SEP 24...	21	.9	1.9	98	0	80	81	2.7	.2	9.9	207

09357100 SAN JUAN RIVER AT HAMMOND BRIDGE NEAR BLOOMFIELD, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N) (00630)	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 (MG/L) AS C) (00689)
OCT 24...	316	.06	.080	.45	.59	.030	50	<10	29	9.5	.2
NOV 20...	478	.18	.040	--	--	.020	50	40	--	5.9	.1
DEC 17...	214	.11	.030	.57	.71	.050	140	30	--	4.1	4.5
JAN 22...	204	.46	.020	.40	.88	.110	30	10	--	4.6	.4
FEB 18...	--	.19	.120	1.9	2.2	.960	30	40	--	4.8	9.7
MAR 18...	169	.09	.000	.33	.42	.070	30	30	--	3.3	.5
APR 06...	262	.12	.080	.52	.72	.090	30	15	33	5.9	.5
MAY 07...	--	--	--	--	--	--	--	--	--	--	--
MAY 21...	227	.01	.020	.40	.43	.050	60	10	--	6.7	1.1
JUN 16...	178	.02	.000	.76	.78	.030	30	20	--	7.6	.5
JUL 24...	207	.08	.010	.85	.94	.030	40	16	5	4.3	1.0
AUG 26...	233	.00	.000	.64	.64	.090	20	22	6	4.0	.7
SEP 24...	206	.00	.000	.35	.35	.030	40	20	--	4.2	.6

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L) AS AL) (01106)	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 24...	1200	0	2	1	200	50	0	<1	50	0	<1	0
APR 06...	1300	30	--	1	--	60	--	<1	30	--	<1	--
JUL 24...	1630	20	2	2	100	60	0	<1	40	0	<1	10
AUG 26...	1630	20	--	2	--	60	--	<1	20	--	<1	--

DATE	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, 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)
OCT 24...	0	0	<3	18	<10	<10	6	0	10	19	60	29
APR 06...	0	--	<3	--	<10	15	--	18	--	16	--	33
JUL 24...	10	0	<3	48	<10	16	16	<10	20	13	40	5
AUG 26...	0	--	<3	--	<10	22	--	<10	--	13	--	6

DATE	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)	NICKEL, DIS- SOLVED (UG/L) AS NI) (01065)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L) AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L) AS SE) (01145)	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 24...	.1	.0	0	<10	2	0	1	1	600	<6.0	20	15
APR 06...	--	.0	--	<10	--	0	--	1	460	<6.0	--	10
JUL 24...	.3	.3	1	<10	5	2	1	1	420	<6.0	40	20
AUG 26...	--	.0	--	<10	--	0	--	1	440	<6.0	--	8

09357100 SAN JUAN RIVER AT HAMMOND BRIDGE NEAR BLOOMFIELD, NM -- Continued

WATER-QUALITY RECORDS

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
OCT 24...	1200	<5.5	.8	3.8	.8	3.5	.9
APR 06...	1300	<3.6	7.2	1.8	4.6	1.8	4.7
JUL 24...	1630	3.8	.9	3.4	.6	3.2	.5

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 24...	1200	500	180
NOV 20...	1445	11	--
DEC 17...	1400	1	9
JAN 22...	1030	32	78
FEB 18...	1045	12	190
MAR 18...	0930	83	20
APR 06...	1300	4	26
MAY 21...	1315	7	60
JUN 16...	1515	30	50
JUL 24...	1630	41	250
AUG 26...	1630	52	200
SEP 24...	1345	44	130

SAN JUAN BASIN
09357100 SAN JUAN RIVER AT HAMMOND BRIDGE NEAR BLOOMFIELD, NM -- Continued
WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	OCT 24,79	NOV 20,79	DEC 17,79	FEB 18,80	MAR 18,80	APR 6,80
TIME	1200	1445	1400	1045	0930	1300
TOTAL CELLS/ML	260	1600	1100	290	26	620
DIVERSITY: DIVISION	0.5	1.0	0.0	0.0	1.0	1.2
..CLASS	0.5	1.0	0.0	0.0	1.0	1.2
..ORDER	0.5	1.0	0.4	0.0	1.0	1.4
...FAMILY	1.2	2.5	2.7	1.0	1.0	2.2
....GENUS	1.2	2.5	2.7	1.0	1.0	2.2
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
....MICRACTINIACEAE						
.....MICRACTINIUM	--	-	--	-	--	-
....OOCYSTACEAE						
.....ANKISTRODESMUS	--	-	--	-	13# 50	--
....OOCYSTIS	--	-	--	-	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	--	-	10 1	--	--	14 2
CHRYSTOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
....COSCINODISCACEAE						
.....CYCLOTELLA	--	-	--	-	--	-
.....MELOSIRA	--	-	86 8	--	--	27 4
..PENNALES						
...ACHNANTHACEAE						
....COCCONEIS	--	-	21 1	43 4	--	14 2
....RHOICOSPHEA	--	-	--	-	--	14 2
...CYMBELLACEAE						
....CYMBELLA	--	-	120 8	220# 20	--	14 2
...DIATOMACEAE						
....DIATOMA	--	-	62 4	95 8	140# 50	96# 16
...FRAGILARIACEAE						
....FRAGILARIA	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	--	-
...GOMPHONEMATACEAE						
....GOMPHONEMA	--	-	310# 20	86 8	--	14 2
...NAVICULACEAE						
....NAVICULA	64# 25	270# 17	360# 32	140# 50	--	27 4
...NITZSCHACEAE						
....NITZSCHIA	170# 65	260# 16	52 5	--	13# 50	27 4
...SURIPELLACEAE						
....SURIPELLA	--	-	21 1	9 1	--	--
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...CHROOCOCCALES						
....CHROOCOCCACEAE						
.....ANACYSTIS	26 10	--	-	--	-	--
...HORMOGONALES						
...OSCILLATORACEAE						
....LYNGBYA	--	-	--	-	--	-
....OSCILLATORIA	--	-	500# 32	--	-	360# 58
EUGLENOPHYTA (EUGLENOIDS)						
..EUGLENOPHYCEAE						
...EUGLENALES						
....EUGLENACEAE						
.....TRACHELOMONAS	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

09357100 SAN JUAN RIVER AT HAMMOND BRIDGE NEAR BLOOMFIELD, NM -- Continued

WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	MAY 21,80		JUN 16,80		JUL 24,80		AUG 26,80		SEP 24,80	
TIME	1315		1515		1630		1630		1345	
TOTAL CELLS/ML	270		880		2400		460		100	
DIVERSITY: DIVISION	0.3		0.8		1.0		1.0		0.0	
...CLASS	0.3		0.8		1.0		1.0		0.0	
...ORDER	0.3		0.8		1.2		1.0		0.5	
...FAMILY	1.5		1.2		1.4		2.0		1.8	
...GENUS	1.5		2.0		1.4		2.0		1.8	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
...MICRACTINIACEAE										
....MICRACTINIUM	--	-	--	-	150	6	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	13	1	--	-	--	-
....OOCYSTIS	13	5	--	-	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	--	-
CHRYSTOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	--	-	240	10	--	-	13	13
....MELOSIRA	--	-	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....COCCONEIS	--	-	--	-	26	1	77#	17	--	-
....RHOICOSPHENIA	--	-	--	-	13	1	--	-	--	-
...CYMBELLACEAE										
....CYMBELLA	--	-	--	-	13	1	--	-	13	13
...DIATOMACEAE										
....DIATOMA	190#	71	77	9	--	-	13	3	39#	38
...FRAGILARIACEAE										
....FRAGILARIA	--	-	77	9	--	-	--	-	--	-
....SYNEDRA	13	5	--	-	13	1	--	-	--	-
...GOMPHONEMACEAE										
....GOMPHONEMA	13	5	--	-	39	2	--	-	--	-
...NAVICULACEAE										
....NAVICULA	--	-	--	-	64	3	100#	22	39#	38
...NITZSCHACEAE										
....NITZSCHIA	26	10	64	7	26	1	39	8	--	-
...SURIARELLACEAE										
....SURIARELLA	13	5	--	-	--	-	13	3	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	--	-	--	-	--	-
...HORMOGONALES										
...OSCILLATORIACEAE										
....LYNGBYA	--	-	350#	40	--	-	--	-	--	-
....OSCILLATORIA	--	-	310#	35	1800#	75	220#	47	--	-
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
...EUGLENACEAE										
....TRACHELOMONAS	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

SAN JUAN BASIN

09357100 SAN JUAN RIVER AT HAMMOND BRIDGE NEAR BLOOMFIELD, NM -- Continued

WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
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
NOV 20...	1445	26	26.7	25.7	44.0	.690	22.7	Polyethylene strip
MAY 07...	1500	30	9.92	9.13	1.29	.120	612	"
AUG 26...	1630	32	17.8	13.9	22.3	1.49	175	"
SEP 24...	1345	28	12.7	11.0	11.6	2.55	147	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (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)
OCT 01...	1145	1020	12.5	151	--	--	--
24...	1200	579	9.0	60	21	22	27
NOV 20...	1445	294	4.5	38	--	--	--
DEC 17...	1400	1630	7.0	320	--	--	--
JAN 22...	1030	1720	5.0	453	--	--	--
FEB 18...	1045	1820	6.0	3970	--	--	--
MAR 18...	0930	2640	5.5	1040	--	--	--
APR 06...	1300	724	12.0	153	42	57	70
21...	1000	2020	8.0	761	--	--	--
MAY 07...	1500	2900	11.0	254	--	--	--
21...	1315	977	16.0	42	--	--	--
JUN 02...	1045	1130	10.0	38	--	--	--
16...	1515	1390	14.0	78	--	--	--
JUL 01...	1200	582	19.0	37	--	--	--
24...	1630	855	22.0	29	--	--	--
AUG 01...	1145	1010	17.5	49	--	--	--
26...	1630	1020	17.5	182	--	--	--
SEP 01...	1445	1030	25.5	68	--	--	--
24...	1345	1010	11.5	436	--	--	--

09357100 SAN JUAN RIVER AT HAMMOND BRIDGE NEAR BLOOMFIELD, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)
OCT						
01...	--	--	--	--	--	--
24...	33	40	67	86	95	100
NOV						
20...	--	--	--	--	--	--
DEC						
17...	--	--	--	--	--	--
JAN						
22...	--	--	--	--	--	--
FEB						
18...	--	--	--	--	--	--
MAR						
18...	--	--	--	--	--	--
APR						
06...	80	85	90	94	97	100
21...	--	--	--	--	--	--
MAY						
07...	--	--	--	--	--	--
21...	--	--	--	--	--	--
JUN						
02...	--	--	--	--	--	--
16...	--	--	--	--	--	--
JUL						
01...	--	--	--	--	--	--
24...	--	--	66	--	--	--
AUG						
01...	--	--	--	--	--	--
26...	--	--	65	--	--	--
SEP						
01...	--	--	--	--	--	--
24...	--	--	--	--	--	--

LOCATION.--Lat 36°38'27", long 108°07'33", in SE₄SE₄ 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 mi² (751 km²).

WATER-DISCHARGE RECORDS

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about, 103 ft³/s (2.92 m³/s) July 2, gage height, 2.84 ft (0.866 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	1.2	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	1.2	.00	.00	.06	.00	.00	9.0	.00	.00
3	.00	.00	.00	1.3	.00	1.5	.20	.00	.00	2.5	.00	.00
4	.00	.00	.00	1.3	.00	3.2	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	1.3	.08	3.0	.00	5.5	.00	.00	.00	.00
6	.00	.00	.00	1.3	.21	3.0	.00	3.2	.00	.00	.00	.00
7	.00	5.2	.00	1.3	.21	1.5	.00	.00	.00	.00	.00	.00
8	.00	31	.02	1.3	.21	.00	.00	.00	.00	.00	.00	.00
9	.00	18	.21	1.4	.21	.00	.00	.00	.00	9.6	.00	.00
10	.00	8.0	.39	1.4	.20	.00	.00	.00	.00	.00	.00	5.7
11	.00	2.0	.49	1.5	.19	2.3	.00	.00	.00	.00	.00	17
12	.00	.70	.62	2.2	.18	1.9	.00	.00	.00	.00	.00	.00
13	.00	.01	.78	1.7	.17	.00	.00	.00	.00	.00	.00	.00
14	.00	.01	.96	4.6	.15	.00	.00	.00	.00	.00	.00	.00
15	.00	.01	1.0	14	.14	.00	.00	.00	.00	.00	.00	.00
16	.00	.01	1.1	8.2	.13	.00	.00	.00	.00	.00	.00	.00
17	.00	.01	1.1	6.2	.12	.40	.00	.00	.00	.00	.00	.00
18	.00	.01	1.1	6.6	.10	.30	.00	.00	.00	.00	.00	.00
19	.00	.02	1.1	22	.09	.00	.00	.00	.00	.00	.00	.00
20	.00	.01	1.1	25	.08	.00	.00	.00	.00	.00	.00	.00
21	1.7	.01	1.1	20	.07	.00	.00	.00	.00	.00	.00	.00
22	3.6	.01	1.0	8.6	.05	.00	.00	.00	.00	.00	.00	.00
23	3.2	.00	1.0	2.6	.04	.00	.00	.00	.00	.00	.00	.00
24	2.3	.00	1.0	.92	.02	.00	.00	.00	.00	.00	.00	.00
25	1.7	.00	1.0	.26	.01	.00	.00	.00	.00	.00	.00	.00
26	1.4	.00	1.0	.06	.00	.00	.00	.00	.00	.00	.00	.00
27	.80	.00	1.0	.02	.00	.00	.00	.00	.00	.00	.00	.00
28	.60	.00	1.0	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.20	.00	1.0	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.09	.00	1.1	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	1.1	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	15.59	65.01	21.27	137.46	2.66	17.10	.26	8.70	.00	21.10	.00	22.70
MEAN	.50	2.17	.69	4.43	.092	.55	.009	.28	.000	.68	.000	.76
MAX	3.6	31	1.1	25	.21	3.2	.20	5.5	.00	9.6	.00	17
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	31	129	42	273	5.3	34	.5	17	.00	42	.00	45
CAL YR 1979	TOTAL 378.50		MEAN 1.04	MAX 150	MIN .00	AC-FT 751						
WTR YR 1980	TOTAL 311.85		MEAN .85	MAX 31	MIN .00	AC-FT 619						

09357250 GALLEGOS CANYON WASH NEAR FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS, AS (MG/L) 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)
NOV 08...	1145	39	1030	8.5	5.5	7.0	9.5	46	0	15	2.0
DEC 10...	1515	.39	1600	8.6	12.0	6.0	10.0	120	0	43	2.8
JAN 04...	1545	.13	1990	8.2	-1.0	.5	11.4	180	4	63	4.7
FEB 06...	1400	.21	1950	8.5	14.0	12.0	8.6	160	0	57	3.8
APR 03...	1430	.20	2710	8.8	12.5	20.0	7.5	160	0	52	6.7

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 (MG/L) AS HCO3) (00440)	CAR- BONATE (MG/L) AS CO3) (00445)	ALKA- LINITY (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)
NOV 08...	200	13	2.8	390	14	340	340	20	.8	9.5	662
DEC 10...	320	13	3.2	210	8	190	550	16	1.0	10	1070
JAN 04...	380	12	3.2	210	0	170	720	24	1.0	11	1330
FEB 06...	370	13	4.1	250	8	220	740	23	1.0	10	1310
APR 03...	540	19	5.4	290	12	258	1000	38	1.6	14	1950

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N) (00630)	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- PENDE (MG/L) AS C) (00689)
NOV 08...	797	.49	.700	17	18	2.500	90	40	7.3	11
DEC 10...	1060	.51	.040	.67	1.2	.090	120	30	6.2	.2
JAN 04...	1310	.47	.000	.95	1.4	.030	130	10	2.1	.2
FEB 06...	1340	2.2	.010	.99	3.2	.120	140	80	13	.5
APR 03...	1810	.25	.260	.94	1.5	.300	220	50	10	1.3

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCOCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 08...	1145	2100	10800
DEC 10...	1515	21	330
JAN 04...	1545	K1	44
FEB 06...	1400	21	215
APR 03...	1430	<1	110

SAN JUAN RIVER BASIN

09357250 GALLEGOS CANYON WASH NEAR FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	BED MAT. FALL DIAM. % FINER 0.062 MM (80158)	BED MAT. FALL DIAM. % FINER 0.125 MM (80159)	BED MAT. FALL DIAM. % FINER 0.250 MM (80160)	BED MAT. FALL DIAM. % FINER 0.500 MM (80161)	BED MAT. FALL DIAM. % FINER 1.00 MM (80162)	BED MAT. FALL DIAM. % FINER 2.00 MM (80163)
NOV										
08...	1145	39	7.0	39600	--	--	--	--	--	--
DEC										
10...	1515	.39	6.0	180	--	--	--	--	--	--
JAN										
04...	1545	.13	.5	182	--	--	--	--	--	--
21...	1615	21	1.0	44100	--	--	--	--	--	--
FEB										
06...	1400	.21	12.0	912	--	--	--	--	--	--
APR										
03...	1430	.20	20.0	1460	--	--	--	--	--	--
SEP										
17...	1815	.00	--	--	10	26	59	95	100	--
17...	1825	.00	--	--	6	20	61	91	99	100
17...	1835	.00	--	--	12	17	28	83	100	--

SAN JUAN RIVER BASIN

433

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 mi² (2,820 km²), approximately.
 PERIOD OF RECORD.--October 1933 to current year. Monthly discharge only for October and November 1933, published in WSP 1313.

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 km²) above station. During water years 1944-49, Twin Rocks Canal diverted above station for irrigation below. Slight regulation by Lemon Dam about 30 mi (48 km) upstream on Florida River since November 1963 (capacity, 40,100 acre-ft or 49.4 hm³). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--47 years, 898 ft³/s (25.43 m³/s), 650,600 acre-ft/yr (802 hm³/yr).
 EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,100 ft³/s (371 m³/s) June 19, 1949, gage height, 11.45 ft (3.490 m); minimum, 63 ft³/s (1.78 m³/s) Jan. 21, 1935.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in October 1911 at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft³/s (110 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 24	1000	5,980 169	8.51 2.594	June 12	1230	*8,200 232	9.73 2.966

Minimum daily, 182 ft³/s (5.15 m³/s) Jan. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	272	266	285	200	209	436	480	2640	4760	3300	681	492
2	271	272	290	190	202	426	528	2360	4480	3100	657	459
3	266	285	290	200	206	428	522	2260	4500	2900	600	426
4	247	281	282	195	209	425	600	2470	4950	2700	570	413
5	248	275	277	190	216	407	739	2770	5390	2400	539	388
6	244	278	266	195	209	406	1030	2980	5860	2200	511	373
7	246	281	264	195	250	416	1060	3130	5840	2000	489	384
8	246	304	263	195	257	378	853	3440	5540	1900	479	423
9	244	302	261	195	247	373	969	3320	6150	1900	500	489
10	258	289	256	220	230	386	1160	2860	6930	1710	497	889
11	250	277	252	216	223	419	1230	2580	7570	1530	472	1630
12	250	272	252	209	234	415	963	2390	7820	1530	444	1140
13	245	276	251	212	234	396	927	2110	7480	1540	431	857
14	245	282	242	234	274	419	1010	1970	7100	1460	444	730
15	245	280	246	270	346	480	1250	2100	6260	1310	486	649
16	245	268	250	238	336	526	1460	2110	5620	1230	514	593
17	241	263	254	220	319	474	1550	2140	5240	1160	491	543
18	242	257	254	220	352	491	1720	2470	5530	1100	457	508
19	243	266	250	223	552	551	2070	2600	5790	1040	430	465
20	246	278	239	230	573	577	2390	3100	5800	990	406	445
21	325	266	241	202	453	660	2700	3820	5600	921	391	425
22	314	254	252	182	427	704	3130	4930	5200	861	387	404
23	289	260	238	198	391	667	3080	5520	4800	848	409	397
24	288	265	246	195	350	630	2660	5690	4900	830	575	387
25	300	270	250	209	343	598	2210	4610	5000	866	977	371
26	288	274	242	223	339	500	2180	3840	4800	882	950	355
27	269	290	265	209	353	504	2300	3680	4500	886	789	343
28	267	281	247	209	382	565	2400	3790	4200	822	669	332
29	262	300	236	220	419	486	2720	4100	3900	758	588	320
30	262	290	222	220	---	516	2830	4340	3400	726	555	311
31	272	---	216	206	---	563	---	4650	---	710	519	---
TOTAL	8130	8302	7879	6520	9135	15222	48721	100770	164910	46110	16907	15941
MEAN	262	277	254	210	315	491	1624	3251	5497	1487	545	531
MAX	325	304	290	270	573	704	3130	5690	7820	3300	977	1630
MIN	241	254	216	182	202	373	480	1970	3400	710	387	311
AC-FT	16130	16470	15630	12930	18120	30190	96640	199900	327100	91460	33540	31620
CAL YR 1979	TOTAL	524803	MEAN	1438	MAX	8330	MIN	140	AC-FT	1041000		
WTR YR 1980	TOTAL	448547	MEAN	1226	MAX	7820	MIN	182	AC-FT	889700		

SAN JUAN RIVER BASIN

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 mi² (3,520 km²), 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 km²) above station.

AVERAGE DISCHARGE.--69 years, 919 ft³/s (26.03 m³/s), 665,800 acre-ft/yr (821 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 25,000 ft³/s (710 m³/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 ft³/s (283 m³/s); minimum, 1.0 ft³/s (0.028 m³/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 ft³/s or 540 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft³/s (110 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 24	1500	5,510 156	8.20 2.499	June 12	0530	*8,460 240	9.61 2.929

Minimum daily, 131 ft³/s (3.71 m³/s) Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159	255	275	208	285	476	498	2690	4620	3130	409	312
2	148	249	279	210	273	478	505	2430	4490	2920	365	291
3	137	260	286	225	275	464	497	2250	4400	2690	353	250
4	134	272	286	218	272	454	548	2330	4790	2460	335	240
5	131	269	292	214	282	448	677	2630	5210	2270	311	236
6	132	263	292	221	278	425	886	2860	5670	2030	284	220
7	135	276	281	220	273	433	1200	2970	5960	1760	250	209
8	133	298	278	228	279	425	910	3320	5660	1740	252	216
9	139	300	279	232	282	393	991	3350	5900	1780	252	273
10	135	289	277	258	266	396	1080	3000	6700	1600	276	612
11	141	285	269	263	248	434	1350	2660	7480	1420	253	1710
12	137	272	265	256	242	451	1090	2490	8010	1290	229	1360
13	137	268	265	257	252	439	1010	2190	7520	1330	225	932
14	143	275	255	260	271	429	1020	1980	6980	1280	216	709
15	144	275	247	305	322	468	1220	2000	6430	1150	233	592
16	147	272	236	300	374	540	1500	2160	5640	1070	254	521
17	149	269	246	274	356	510	1650	2050	5160	987	268	458
18	151	276	248	274	363	509	1780	2300	5090	899	242	422
19	156	283	247	293	486	548	2170	2430	5520	816	227	378
20	164	295	243	317	737	570	2480	2760	5650	735	212	337
21	270	284	252	291	616	647	2820	3430	5270	679	184	317
22	279	274	257	257	551	759	3240	4430	4870	588	180	272
23	260	268	249	245	504	724	3400	5030	4510	528	194	257
24	245	289	228	244	437	687	2540	5290	4760	517	275	250
25	238	282	226	243	406	627	2200	3800	4790	519	673	213
26	227	292	239	247	391	533	2290	3180	4510	556	858	222
27	237	283	262	271	387	491	2390	3380	4330	595	679	217
28	239	289	257	268	411	543	2480	3370	4030	526	520	205
29	241	286	237	275	443	501	2740	3780	3550	479	427	204
30	247	282	229	287	---	485	2840	4160	3240	441	363	196
31	251	---	216	299	---	548	---	4440	---	425	337	---
TOTAL	5544	8330	7998	7960	10562	15835	50002	95140	160740	39200	10136	12631
MEAN	180	278	258	257	364	511	1667	3069	5358	1265	327	421
MAX	279	300	292	317	737	759	3400	5290	8010	3130	858	1710
MIN	131	249	216	208	242	393	497	1980	3240	425	180	196
AC-FT	11080	16520	15860	15790	20950	31410	99180	188700	318800	77750	20100	25050
CAL YR 1979	TOTAL	522689	MEAN	1432	MAX	8060	MIN	131	AC-FT	1037000		
WTR YR 1980	TOTAL	424120	MEAN	1159	MAX	8010	MIN	131	AC-FT	841200		

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, 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, 930 micromhos Jan. 22; minimum daily, 209 micromhos June 20.

WATER TEMPERATURES: Maximum, 30.0°C Aug. 10-11; minimum, 2.0°C on several days in November to January.

SEDIMENT CONCENTRATIONS: Maximum daily, 3,800 mg/L Apr. 7; minimum daily, 4 mg/L Oct. 3, 8.

SEDIMENT LOADS: Maximum daily, 21,900 tons (19,900 tonnes) June 17; minimum daily, 1.4 tons (1.3 tonnes) Oct. 8.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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										
23...	1202	256	865	8.5	11.5	9.5	22	10.6	14	350
NOV										
27...	1200	232	820	8.5	2.0	4.0	2.4	14.2	24	350
DEC										
18...	1212	259	795	8.4	5.0	1.5	4.5	--	25	340
JAN										
23...	1200	246	880	8.3	4.5	2.0	160	12.1	63	320
FEB										
06...	1515	275	801	8.5	14.0	5.0	100	10.8	--	320
MAR										
04...	0720	471	802	8.5	5.5	4.5	190	11.0	39	310
APR										
02...	1300	468	705	8.2	7.5	6.0	84	10.2	22	320
28...	1245	2600	345	8.3	25.5	12.0	130	9.9	26	170
JUN										
04...	1400	5220	247	7.9	31.5	12.0	35	9.3	20	100
JUL										
09...	0925	1760	320	7.8	27.5	17.5	5.2	8.0	10	130
AUG										
06...	0920	303	620	8.0	27.5	22.0	7.4	7.9	14	250
SEP										
03...	0930	265	690	8.3	21.5	15.5	25	8.2	27	270
30...	0900	204	710	8.2	15.0	14.0	3.5	9.6	--	300

DATE	HARD- NESS, NONCAR- BONATE (MG/L AS 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- LITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
OCT									
23...	160	110	18	49	1.1	5.7	190	230	34
NOV									
27...	190	110	18	44	1.0	3.6	160	220	27
DEC									
18...	160	110	17	42	1.0	3.5	180	200	27
JAN									
23...	140	100	16	42	1.2	3.7	180	230	26
FEB									
06...	150	100	16	44	1.1	3.4	170	220	25
MAR									
04...	150	92	19	50	1.2	3.2	160	220	23
APR									
02...	160	94	20	40	1.0	3.4	160	220	20
28...	68	50	10	11	.4	1.6	98	72	5.4
JUN									
04...	35	33	4.9	5.1	.2	1.1	68	42	2.9
JUL									
09...	64	42	5.9	10	.4	1.5	65	67	5.9
AUG									
06...	110	80	13	30	.8	3.3	140	140	20
SEP									
03...	120	86	14	36	1.0	3.8	150	160	23
30...	140	95	16	42	1.1	3.8	160	200	27

SAN JUAN RIVER BASIN

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 23...	.5	10	598	573	.22	.23	.090	.060	1.0
NOV 27...	.7	5.6	543	526	.13	.07	.040	.040	.28
DEC 18...	.3	6.9	541	516	.16	.16	.060	.030	.48
JAN 23...	.5	8.8	586	546	.46	.44	.140	.090	.59
FEB 06...	.5	7.9	555	521	.35	.35	.060	.050	.56
MAR 04...	.4	8.8	537	515	.45	.45	.150	.140	.95
APR 02...	.3	8.6	518	505	.41	.42	.090	.040	1.1
28...	.2	6.9	230	217	.17	.17	.070	.070	3.6
JUN 04...	.4	5.3	140	136	.06	.06	.040	.030	.66
JUL 09...	.3	6.1	197	178	.13	.08	.040	.040	.43
AUG 06...	.5	2.6	412	374	.01	.03	.040	.010	.52
SEP 03...	.5	3.7	489	417	.67	.00	.010	.030	.79
30...	.5	4.6	496	485	.00	.00	.100	.040	.48

DATE	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHOPH- OSPHATE DISSOL. (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- PENDE (MG/L AS C) (00689)
OCT 23...	1.3	.080	.050	100	10	--	4.8	5.9	.1
NOV 27...	.45	.020	.010	100	<10	70	--	3.9	.5
DEC 18...	.70	.060	.080	110	<10	--	10	11	1.1
JAN 23...	1.2	.140	.030	80	<10	180	--	7.8	1.1
FEB 06...	.97	.100	.020	70	<10	--	6.1	5.6	1.4
MAR 04...	1.6	.230	.080	60	<10	--	4.8	4.2	2.6
APR 02...	1.6	.170	.030	70	<10	50	--	6.0	1.2
28...	3.9	.190	.010	30	10	--	6.0	4.6	2.6
JUN 04...	.76	.150	.030	40	30	--	3.4	3.2	.9
JUL 09...	.60	.070	.000	20	30	20	--	2.1	.4
AUG 06...	.57	.040	.020	60	<10	--	3.4	3.2	.5
SEP 03...	1.5	.020	.000	90	<10	--	3.6	4.6	.3
30...	.58	.010	--	--	<10	30	--	2.4	.3

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
NOV 27...	1200	2	1	400	80	100	0	<1	10	0
APR 02...	1300	2	0	300	100	70	1	<1	0	0
28...	1245	--	--	--	--	30	--	--	--	--
JUL 09...	0925	1	1	100	50	20	0	2	10	10
AUG 06...	0920	--	--	--	--	60	--	--	--	--
SEP 30...	0900	1	1	100	90	--	0	<1	10	0

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
NOV 27...	1	<3	3	0	310	<10	3	6	90	70
APR 02...	4	<3	9	2	3300	<10	21	0	270	50
APR 28...	--	--	--	--	--	10	--	--	--	--
JUL 09...	1	<3	4	4	1400	30	1	0	140	20
AUG 06...	--	--	--	--	--	<10	--	--	--	--
SEP 30...	0	<3	6	0	190	<10	3	0	50	30
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 SOLVED (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 27...	.1	.0	6	0	0	1	0	0	60	10
APR 02...	.1	.3	7	1	2	2	0	0	130	10
APR 28...	--	--	--	--	--	--	0	--	--	--
JUL 09...	.2	.0	1	3	0	0	0	0	150	20
AUG 06...	--	--	--	--	--	--	0	--	--	--
SEP 30...	.2	.0	6	0	1	1	0	0	40	10

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
NOV 27...	1200	<7.2	<.4	<4.0	.4	<3.8	.5	.07	--	3.0
APR 02...	1300	<6.4	8.7	<3.8	5.9	<3.8	6.0	.10	--	2.8
SEP 30...	0900	<8.4	<.4	<3.4	.5	<3.3	.5	.09	3.0	--

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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...	1202	190	280
NOV 27...	1200	70	25
APR 02...	1300	800	400
APR 28...	1245	1200	280
JUN 04...	1400	370	230
JUL 09...	0925	650	260
AUG 06...	0920	100	96
SEP 03...	0930	670	190
SEP 30...	0900	250	200

WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	OCT 23,79	MAR 4,80	APR 28,80	JUN 4,80	AUG 20,80	SEP 30,80
TIME	1202	0720	1245	1400	1600	0900
TOTAL CELLS/ML	2400	1300	140	890	1700	5200
DIVERSITY: DIVISION	1.4	1.1	0.5	0.6	0.6	0.4
..CLASS	1.4	1.1	0.5	0.6	0.6	0.4
..ORDER	1.5	1.1	1.2	0.6	0.8	1.0
...FAMILY	2.3	2.7	2.4	0.8	1.0	1.1
....GENUS	2.3	2.7	2.4	1.2	1.0	1.5
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
....MICRACITINIAEAE						
....MICRACITINIUM	150	6	--	--	--	--
....OOCYSTACEAE						
....ANKISTRODESMUS	--	--	14	10	--	--
....OOCYSTIS	--	57	4	--	--	--
...SCENEDESMACEAE						
....SCENEDESMUS	150	6	--	--	--	* 0
...VOLVOCALES						
....CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	--	--	--	14	2	13 1
CHRYSOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
....COSCINODISCACEAE						
....CYCLOTELLA	39	2	27#	20	26	2
....MELOSIRA	--	--	--	--	--	--
...PENNALES						
....ACHNANTHACEAE						
....ACHNANTHES	--	--	14	10	29	3
....COCCONEIS	--	--	--	--	--	--
....RHOICOSPHEA	39	2	14	1	--	--
...CYMBELLACEAE						
....CYMBELLA	--	210#	16	27#	20	29
...FRAGILARIACEAE						
....SYNEDRA	77	3	14	1	--	--
...GOMPHONEMACEAE						
....GOMPHONEMA	39	2	57	4	--	--
...NAVICULACEAE						
....NAVICULA	230	10	140	11	14	2
...NITZSCHIACEAE						
....NITZSCHIA	620#	25	320#	23	41#	30
...SURIPELLACEAE						
....SURIPELLA	--	--	160	12	14	10
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...CHROOCOCCALES						
....CHROOCOCCACEAE						
....AGMENELLUM	--	--	--	--	--	410 8
....ANACYSTIS	--	--	--	--	26	2
...HORMOGONALES						
....OSCILLATORIACEAE						
....LYNGBYA	--	--	--	--	720#	81
....OSCILLATORIA	1100#	44	360#	27	57	6
EUGLENOPHYTA (EUGLENOIDS)						
..EUGLENOPHYCEAE						
...EUGLENALES						
....EUGLENACEAE						
....EUGLENA	--	--	14	1	--	--

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
PERIPHYTON

DATE	TIME	LENGTH OF EXPO- SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL WEIGHT G/SQ M (00573)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERI- PHYTON CHROMO- FLUOROM (MG/M2) (70957)	CHLOR-B PERI- PHYTON CHROMO- FLUOROM (MG/M2) (70958)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)	SAMPLING METHOD Polyethylene strip
OCT 23...	1202	29	1.50	1.34	1.86	.250	86.0	
APR 28...	1245	26	.236	.236	.000	.000	--	"
SEP 03...	0930	27	45.5	41.8	19.4	1.33	191	"
30...	0900	26	2.28	1.73	.260	.190	2115	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

		STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (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 23...	1202	256	9.5	70	48	60	71	80	88	94	
NOV 27...	1200	232	4.0	34	21	77	82	84	86	88	
DEC 18...	1212	259	1.5	29	20	--	--	--	--	--	
JAN 23...	1200	246	2.0	148	98	--	--	--	--	--	
FEB 06...	1515	275	5.0	156	116	67	79	87	90	93	
MAR 04...	0930	471	4.5	308	392	46	58	--	78	--	
22...	0810	876	6.0	2440	5770	43	52	--	76	--	
APR 02...	1300	468	6.0	167	211	43	60	73	81	88	
23...	1800	3320	12.0	793	7110	22	26	--	33	--	
28...	1245	2600	12.0	826	5800	20	25	--	33	--	
JUN 08...	1400	5220	12.0	489	6890	6	8	--	14	--	
JUL 09...	0925	1760	17.5	67	318	--	--	--	--	--	
AUG 06...	0920	303	22.0	28	23	--	--	--	--	--	
SEP 03...	0930	265	15.5	12	8.6	--	--	--	--	--	
30...	0900	204	14.0	8	4.4	--	--	--	--	--	
		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 23...	--	--	--	--	--	--	96	98	99	100	--
NOV 27...	--	--	--	--	--	--	92	92	96	100	--
DEC 18...	--	--	--	--	--	--	95	95	100	--	--
JAN 23...	--	--	--	--	--	--	93	97	98	100	--
FEB 06...	--	--	--	--	--	--	97	98	99	100	--
MAR 04...	--	--	--	--	--	--	96	98	99	100	--
22...	97	99	100	--	--	--	--	--	--	--	--
APR 02...	--	--	--	--	--	--	95	98	99	100	--
23...	61	76	92	99	100	--	--	--	--	--	--
28...	51	60	76	99	100	--	--	--	--	--	--
JUN 08...	38	58	77	98	100	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	55	72	89	98	100
AUG 06...	--	--	--	--	--	--	89	95	100	--	--
SEP 03...	--	--	--	--	--	--	96	99	100	--	--
30...	--	--	--	--	--	--	99	100	--	--	--

SAN JUAN RIVER BASIN
09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued
WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	730	787	542	768	823	800	788	382	263	269	---	693
2	793	743	441	810	842	830	848	410	263	269	---	662
3	773	791	737	761	888	740	824	417	256	293	542	682
4	771	772	744	765	860	762	822	422	263	288	586	737
5	802	770	784	793	790	818	812	428	241	308	618	737
6	790	765	715	761	850	830	584	404	231	337	649	793
7	815	762	740	802	803	844	559	382	248	347	684	813
8	780	738	741	777	870	835	546	380	221	341	700	789
9	837	761	727	860	814	870	640	355	217	349	676	809
10	800	765	719	815	860	841	533	349	226	368	668	657
11	818	749	754	806	770	849	615	398	228	372	658	552
12	776	796	740	815	868	859	542	400	213	400	733	437
13	818	735	759	802	814	866	455	450	219	388	731	---
14	818	750	738	880	904	876	671	448	226	388	776	572
15	824	784	747	755	845	852	702	470	245	433	753	587
16	810	816	753	820	800	791	535	470	228	434	690	598
17	826	761	852	870	750	795	518	475	227	468	690	614
18	819	804	863	892	767	788	465	413	229	464	696	613
19	874	792	883	805	700	786	460	409	210	486	718	626
20	831	751	879	870	702	778	391	356	209	514	730	619
21	843	757	---	882	739	721	386	349	232	530	789	677
22	827	753	873	930	865	709	382	291	225	556	813	661
23	736	775	866	853	808	691	383	284	225	556	826	705
24	745	794	881	888	882	687	415	275	217	557	705	711
25	745	785	891	862	889	692	422	280	219	562	703	736
26	730	797	868	842	925	799	422	279	220	583	594	757
27	755	743	866	844	855	815	415	331	220	581	575	786
28	730	786	833	777	888	780	415	335	233	580	575	778
29	800	753	777	811	787	786	666	365	265	591	603	775
30	747	705	869	833	---	774	362	261	266	585	640	869
31	804	---	889	822	---	782	---	268	---	---	---	---
MEAN	792	768	782	825	826	795	553	372	233	440	683	691
WTR YR 1980	MEAN	646	MAX	930	MIN	209						

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	10.0	3.0	2.0	6.0	10.0	9.0	15.0	15.0	22.0	27.0	25.0
2	21.0	9.0	5.0	2.0	6.0	8.0	8.0	15.0	16.0	21.0	27.0	25.0
3	21.0	7.0	5.0	2.0	6.0	7.0	10.0	15.0	17.0	21.0	27.0	25.0
4	22.0	9.0	5.0	2.0	6.0	8.0	12.0	15.0	17.0	20.0	27.0	25.0
5	22.0	9.0	5.0	2.0	7.0	9.0	13.0	15.0	17.0	20.0	28.0	25.0
6	17.0	9.0	6.0	2.0	8.0	8.0	12.0	14.0	17.0	20.0	28.0	25.0
7	20.0	9.0	6.0	3.0	8.0	7.0	11.0	13.0	17.0	21.0	29.0	25.0
8	20.0	9.0	7.0	4.0	8.0	7.0	11.0	13.0	16.0	22.0	29.0	25.0
9	18.0	10.0	7.0	5.0	6.0	8.0	12.0	13.0	19.0	23.0	29.0	25.0
10	18.0	9.0	7.0	5.0	6.0	9.0	12.0	12.0	19.0	23.0	30.0	25.0
11	18.0	8.0	7.0	5.0	7.0	9.0	12.0	12.0	19.0	24.0	30.0	25.0
12	18.0	8.0	6.0	6.0	8.0	9.0	11.0	12.0	19.0	22.0	29.0	25.0
13	19.0	8.0	5.0	8.0	9.0	10.0	12.0	13.0	20.0	22.0	28.0	25.0
14	19.0	8.0	5.0	8.0	8.0	11.0	13.0	14.0	18.0	23.0	28.0	25.0
15	19.0	9.0	5.0	8.0	7.0	11.0	13.0	14.0	16.0	24.0	26.0	23.0
16	19.0	8.0	5.0	7.0	8.0	10.0	14.0	14.0	16.0	24.0	26.0	23.0
17	19.0	8.0	5.0	7.0	7.0	10.0	14.0	15.0	28.0	25.0	26.0	24.0
18	20.0	7.0	5.0	8.0	7.0	12.0	14.0	16.0	20.0	25.0	27.0	24.0
19	18.0	5.0	5.0	7.0	8.0	9.0	14.0	18.0	19.0	25.0	26.0	23.0
20	16.0	4.0	5.0	6.0	7.0	9.0	13.0	18.0	18.0	25.0	25.0	23.0
21	14.0	3.0	---	6.0	6.0	7.0	13.0	18.0	19.0	28.0	24.0	22.0
22	13.0	3.0	4.0	6.0	7.0	6.0	13.0	16.0	20.0	28.0	23.0	21.0
23	14.0	3.0	4.0	6.0	8.0	8.0	12.0	15.0	22.0	29.0	22.0	21.0
24	16.0	4.0	3.0	5.0	8.0	10.0	10.0	15.0	20.0	28.0	22.0	21.0
25	17.0	2.0	4.0	5.0	8.0	7.0	11.0	10.0	19.0	27.0	23.0	21.0
26	17.0	3.0	4.0	6.0	9.0	9.0	14.0	12.0	20.0	27.0	24.0	22.0
27	16.0	4.0	4.0	7.0	11.0	12.0	15.0	14.0	22.0	26.0	24.0	22.0
28	15.0	2.0	4.0	7.0	10.0	11.0	16.0	16.0	19.0	27.0	25.0	22.0
29	13.0	3.0	3.0	7.0	10.0	10.0	16.0	16.0	20.0	27.0	25.0	21.0
30	12.0	3.0	3.0	7.0	---	9.0	16.0	17.0	21.0	27.0	24.0	21.0
31	10.0	---	2.0	7.0	---	8.0	---	15.0	---	27.0	24.0	---
MEAN	17.5	6.5	5.0	5.5	7.5	9.0	12.5	14.5	19.0	24.5	26.0	23.5
WTR YR 1980	MEAN	14.5	MAX	30.0	MIN	2.0						

DAY	MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION	
	(MG/L)	(T/DAY)	(MG/L)	(T/DAY)	(MG/L)	(T/DAY)	(MG/L)	(T/DAY)	(MG/L)	(T/DAY)	(MG/L)	(T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9	3.9	36	25	92	68	28	16	138	106	810	1040
2	5	2.0	27	18	80	60	27	15	163	120	1930	2490
3	4	1.5	30	21	40	31	23	14	191	142	977	1220
4	5	1.8	38	28	31	24	24	14	158	116	455	558
5	5	1.8	153	111	30	24	22	13	149	113	573	693
6	9	3.2	279	198	33	26	21	13	157	118	360	413
7	5	1.8	208	155	36	27	20	12	146	108	322	376
8	4	1.4	100	80	36	27	25	15	138	104	256	294
9	5	1.9	81	66	29	22	49	31	127	97	162	172
10	9	3.3	44	34	29	22	67	47	109	78	340	364
11	6	2.3	31	24	34	25	103	73	110	74	370	434
12	7	2.6	26	19	25	18	197	136	80	52	245	298
13	7	2.6	27	20	23	16	209	145	1160	789	239	283
14	16	6.2	24	18	53	36	208	146	660	483	178	206
15	7	2.7	26	19	28	19	365	301	500	435	403	509
16	5	2.0	28	21	27	17	452	366	853	861	407	593
17	22	8.9	24	17	105	70	285	211	960	923	411	566
18	32	13	35	26	30	20	628	465	1630	1600	361	496
19	13	5.5	191	146	21	14	533	422	1920	2520	643	951
20	10	4.4	92	73	18	12	494	423	1690	3360	803	1240
21	182	133	67	51	24	16	412	324	1700	2830	2150	3760
22	198	149	65	48	34	24	183	127	500	744	2100	4300
23	74	52	40	29	36	24	137	91	235	320	567	1110
24	43	28	36	28	25	15	192	126	228	269	597	1110
25	105	67	41	31	24	15	138	91	1200	1320	755	1280
26	23	14	37	29	37	24	64	43	1720	1820	285	410
27	40	26	42	32	44	31	70	51	520	543	238	316
28	37	24	62	48	31	22	52	38	340	377	270	396
29	60	39	57	44	26	17	56	42	661	791	293	396
30	70	47	52	40	32	20	82	64	---	---	576	754
31	44	30	---	---	28	16	340	274	---	---	635	940
TOTAL	---	681.8	---	1499	---	802	---	4149	---	21213	---	27968

DAY	MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION	
	(MG/L)	(T/DAY)	(MG/L)	(T/DAY)	(MG/L)	(T/DAY)	(MG/L)	(T/DAY)	(MG/L)	(T/DAY)	(MG/L)	(T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	250	336	609	4420	252	3140	146	1230	26	29	16	13
2	220	300	301	1970	238	2890	125	985	26	26	41	32
3	825	1110	258	1570	366	4350	108					

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 mi² (18,750 km²), 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 except those for January and February, which are poor. 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 km²), 4,000 of which is irrigated by Farmers Mutual ditch which diverts from Animas River and bypasses this station; ditch flow not included in record. At times this ditch may be supplied partly or entirely by diversion from San Juan River below this station. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--68 years (water years 1913-80), 2,373 ft³/s (67.20 m³/s), 1,719,000 acre-ft/yr (2.12 km³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 68,000 ft³/s (1,930 m³/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 ft³/s (1,050 m³/s); minimum, 14 ft³/s (0.40 m³/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, 9,580 ft³/s (271 m³/s) June 12, gage height, 6.24 ft (1.902 m); minimum daily, 399 ft³/s (11.3 m³/s) Nov. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1230	821	1940	1980	2080	2530	1430	5390	5520	3610	1360	1280
2	1190	808	2000	1950	2050	2540	1190	5090	5370	3440	1280	1260
3	1190	829	1960	1990	2000	2550	981	4950	5240	3250	1260	1180
4	1210	853	1960	1980	1980	2560	1100	5060	5650	2980	1240	1140
5	1200	833	1960	1950	1920	2540	1270	5360	6280	2820	1180	1150
6	1210	832	1970	1950	1930	2500	1530	5640	6930	2610	1140	1180
7	1060	892	1960	1950	1950	2520	1920	5800	7300	2440	1140	1210
8	842	1040	1970	1980	1980	2580	1510	6280	6950	2450	1110	1240
9	650	941	1970	1980	1980	2530	1640	5900	7160	2550	1240	1480
10	534	753	1950	2000	1980	2570	1750	5180	8360	2370	1190	2140
11	534	566	1940	2000	1960	3090	2070	4710	9010	2230	1150	3940
12	553	473	1990	1980	1950	3060	1740	4560	9310	2130	1130	2440
13	559	440	2020	1970	1950	2980	1640	4040	8960	2180	1120	2000
14	794	439	2020	1970	1940	2970	1650	3570	8640	2160	1110	1770
15	938	442	2010	2050	2000	2980	1870	3450	8000	2020	1160	1670
16	945	431	2000	2200	2400	3060	2310	3510	7140	1900	1190	1580
17	937	426	2020	2100	2600	3090	2580	3220	6620	1820	1190	1510
18	764	425	2020	2100	2400	3130	2880	3440	6620	1740	1160	1470
19	750	436	2010	2100	2500	3170	3460	3550	6570	1680	1180	1440
20	794	429	2020	2150	3200	3200	4190	3710	6640	1600	1150	1340
21	1230	399	2030	2250	3100	3190	4840	4350	6200	1520	1100	1290
22	1070	623	2060	2150	2900	3260	5790	5500	5810	1430	1150	1260
23	969	699	2040	2100	2700	3220	6170	6270	5330	1360	1050	1230
24	882	715	2020	2050	2400	3160	5670	6550	5390	1360	1240	1220
25	889	713	2010	2000	2200	2870	5080	5690	5160	1400	1640	1700
26	893	753	2030	2000	2300	2630	4840	4610	4950	1430	1770	1210
27	766	941	2110	2050	2350	2460	4910	4390	4800	1460	1630	1200
28	721	1080	2080	1990	2350	2400	5060	4400	4540	1390	1590	1200
29	728	1370	2050	1980	2450	1840	5370	4710	4070	1320	1570	1190
30	724	1600	2030	2050	---	1750	5560	5090	3700	1350	1360	1250
31	798	---	1990	2100	---	1820	---	5360	---	1390	1320	---
TOTAL	27554	22002	62140	63050	65500	84750	92001	149330	192220	63390	39100	44670
MEAN	889	733	2005	2034	2259	2734	3067	4817	6407	2045	1261	1489
MAX	1230	1600	2110	2250	3200	3260	6170	6550	9310	3610	1770	3940
MIN	534	399	1940	1950	1920	1750	981	3220	3700	1320	1050	1140
AC-FT	54650	43640	123300	125100	129900	168100	182500	296200	381300	125700	77550	88600
CAL YR 1979 TOTAL	1330405			MEAN 3645	MAX 12300	MIN 399	AC-FT 2639000					
WTR YR 1980 TOTAL	905707			MEAN 2475	MAX 9310	MIN 399	AC-FT 1796000					

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.

HARDNESS: May 1962 to current year.

DISSOLVED SOLIDS: 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, 780 micromhos Apr. 11; minimum daily, 217 micromhos June 17-18.

WATER TEMPERATURES: Maximum, 26.0°C July 23; minimum, 3.0°C Nov. 22-23, 27-28.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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										
23...	1446	962	695	8.4	18.0	10.0	51	10.5	24	240
NOV										
29...	1300	1350	455	8.1	5.5	4.0	39	11.2	28	160
DEC										
18...	1500	2020	415	8.3	9.0	5.5	19	--	13	150
FEB										
07...	0900	1980	415	7.8	7.0	4.5	70	10.5	20	160
MAR										
04...	1020	2700	425	8.2	9.0	5.5	150	11.1	29	150
APR										
02...	1035	1170	520	8.4	6.0	5.5	44	11.2	13	200
30...	0800	5410	300	8.4	13.0	7.0	46	--	12	120
JUN										
05...	0805	5840	245	8.3	16.5	10.5	34	9.3	19	95
JUL										
09...	1230	2550	340	8.2	33.0	20.0	14	8.9	11	130
AUG										
06...	1220	1220	425	8.1	32.5	19.5	15	9.8	19	130
SEP										
04...	1320	1140	400	8.7	32.0	15.5	10	10.4	53	130

DATE	HARD- NESS, NONCAR- BONATE (MG/L AS 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 (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
OCT									
23...	110	74	13	45	1.3	4.3	130	180	21
NOV									
29...	64	51	8.9	29	1.0	2.3	100	120	9.5
DEC									
18...	56	48	7.8	23	.8	2.3	96	100	11
FEB									
07...	58	50	8.1	27	.9	2.2	100	110	10
MAR									
04...	56	47	8.8	31	1.1	2.3	98	110	8.7
APR									
02...	92	61	12	39	1.2	2.6	110	170	11
30...	38	35	6.9	14	.6	1.5	78	55	3.4
JUN									
05...	31	30	4.9	8.2	.4	1.2	64	44	2.7
JUL									
09...	51	42	6.2	17	.6	1.7	79	77	6.4
AUG									
06...	54	41	7.3	22	.8	2.2	79	83	6.3
SEP									
04...	48	40	7.6	23	.9	2.1	83	85	6.5

09365000 SAN JUAN RIVER AT FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 23...	.3	10	455	427	.13	.17	.660	.620	1.3
NOV 29...	.5	.0	304	282	.34	.23	.320	.330	.67
DEC 18...	.1	10	272	260	.11	.10	.210	.250	.42
FEB 07...	.2	9.8	304	279	.27	.28	.220	.200	.41
MAR 04...	.2	10	293	278	.20	.19	.160	.140	1.6
APR 02...	.3	9.9	367	373	.21	.23	.230	.170	.53
30...	.2	8.1	178	171	.10	.10	.070	.040	.43
JUN 05...	.1	5.8	145	136	.11	.11	.020	.000	.30
JUL 09...	.3	7.0	221	205	.09	.05	.110	.120	.48
AUG 06...	.3	8.2	235	218	.00	.00	.100	.010	.72
SEP 04...	.3	8.9	271	223	3.2	.00	.140	.140	.57

DATE	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHOPH OSPHATE DISSOL. (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- PENDEED (MG/L AS C) (00689)
OCT 23...	2.1	.260	.180	70	<10	--	6.8	4.3	.5
NOV 29...	1.3	.210	.080	60	<10	<1	--	6.4	.5
DEC 18...	.74	.150	.100	50	<10	--	4.6	3.5	.7
FEB 07...	.90	.120	.070	40	10	50	--	5.2	--
MAR 04...	2.0	.210	.080	40	10	--	12	7.8	2.4
APR 02...	.97	.160	.100	50	<10	70	--	3.6	.4
30...	.60	.110	.030	30	20	--	5.0	3.2	.7
JUN 05...	.43	.130	.060	10	50	--	6.4	2.3	1.0
JUL 09...	.68	.080	.010	10	30	--	6.6	2.2	.4
AUG 06...	.82	.070	.030	40	10	8	4.9	4.2	.4
SEP 04...	3.9	.090	.040	40	<10	--	7.2	5.7	.5

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ARSENIC	ARSENIC	BARIUM,	BARIUM,	BORON,	CADMIUM	CADMIUM	CHRO-	CHRO-
		TOTAL (UG/L AS AS) (01002)	DIS- SOLVED (UG/L AS AS) (01000)	TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	DIS- SOLVED (UG/L AS BA) (01005)	TOTAL RECOV- ERABLE (UG/L AS B) (01020)	TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	DIS- SOLVED (UG/L AS CD) (01025)	MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	MIUM, DIS- SOLVED (UG/L AS CR) (01030)
NOV 29...	1300	2	1	400	<2	60	0	<1	0	0
FEB 07...	0900	2	0	100	60	40	0	<1	10	0
APR 02...	1035	2	0	200	80	50	2	<1	0	0
AUG 06...	1220	2	1	100	60	40	0	<1	0	20

DATE	COBALT,	COBALT,	COPPER,	COPPER,	IRON,	IRON,	LEAD,	LEAD,	MANGA-
	TOTAL RECOV- ERABLE (UG/L AS CO) (01037)	DIS- SOLVED (UG/L AS CO) (01035)	TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	DIS- SOLVED (UG/L AS CU) (01040)	TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	DIS- SOLVED (UG/L AS FE) (01046)	TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	DIS- SOLVED (UG/L AS PB) (01049)	NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)
NOV 29...	2	<3	10	0	3000	<10	160	4	210
FEB 07...	0	<3	4	0	2100	10	13	0	150
APR 02...	3	<3	9	1	2200	<10	8	0	160
AUG 06...	0	<3	14	2	780	10	5	0	50

DATE	MANGA-	MERCURY	MERCURY	SELE-	SELE-	SILVER,	SILVER,	ZINC,	ZINC,
	NESE, DIS- SOLVED (UG/L AS MN) (01056)	TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	DIS- SOLVED (UG/L AS HG) (71890)	NIUM, TOTAL SOLVED (UG/L AS SE) (01147)	NIUM, DIS- SOLVED (UG/L AS SE) (01145)	TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	DIS- SOLVED (UG/L AS AG) (01075)	TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	DIS- SOLVED (UG/L AS ZN) (01090)
NOV 29...	<1	1.0	.0	0	1	0	0	60	<3
FEB 07...	50	.1	.0	1	1	0	0	100	10
APR 02...	70	.1	.0	1	1	0	0	40	5
AUG 06...	8	.1	.0	1	1	0	0	50	9

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
NOV 29...	1300	<4.2	12	3.1	7.3	3.0	7.5	.06	1.5
APR 02...	1035	<4.1	5.2	2.6	4.6	2.6	4.6	.07	1.6

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 29...	1300	1350	4.0	409	63
DEC 18...	1500	2020	5.5	254	24
FEB 07...	0900	1980	4.5	275	29
APR 30...	0800	5410	7.0	440	41
AUG 06...	1220	1220	19.5	47	60
SEP 04...	1320	1140	15.5	38	57
30...	1130	1170	11.0	644	9

SAN JUAN RIVER BASIN
09365000 SAN JUAN RIVER AT FARMINGTON, NM -- Continued
WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

ONCE-DAILY												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	395	682	367	448	302	393	595	315	271	275	354	394
2	398	608	420	275	298	374	537	308	263	275	353	391
3	387	599	362	378	288	367	551	322	259	277	390	371
4	404	558	327	426	288	395	478	334	263	301	443	388
6	384	488	384	540	384	360	495	331	238	326	343	368
7	437	484	361	542	380	394	604	314	247	334	393	393
8	448	669	339	359	289	431	499	311	234	370	348	391
9	586	655	350	397	298	328	499	305	236	370	368	618
10	595	697	379	377	285	377	478	305	237	352	441	478
11	537	696	389	428	287	382	780	327	234	381	384	557
12	520	746	332	446	392	360	423	314	239	351	326	377
13	441	723	326	405	438	275	548	358	222	355	326	---
14	455	752	340	409	325	276	445	325	218	350	472	---
15	421	759	349	415	325	349	382	383	230	360	357	367
16	431	748	337	468	435	364	370	349	228	380	323	352
17	489	727	261	413	507	272	539	378	217	389	428	351
18	480	719	261	376	372	272	427	348	217	385	325	340
19	537	767	259	521	614	340	363	347	229	401	345	341
20	474	774	261	442	691	377	317	332	229	399	355	345
21	608	632	274	620	469	368	320	327	233	409	349	349
22	703	641	274	440	635	374	298	282	232	398	348	349
23	619	608	350	306	418	467	311	286	225	415	348	421
24	584	599	275	303	414	344	307	287	229	407	509	383
25	604	594	391	420	469	346	327	273	225	422	383	377
26	550	395	318	530	433	459	307	378	275	351	405	---
27	609	612	387	452	372	368	304	307	231	369	383	349
28	598	439	548	370	356	351	308	310	229	369	383	377
28	598	439	548	370	356	351	308	310	229	369	383	377
29	554	408	549	365	417	327	---	319	236	369	383	386
30	625	342	274	363	---	444	---	274	276	370	---	372
31	546	---	410	366	---	431	---	264	---	479	361	---
MEAN	510	626	349	424	395	367	443	321	238	364	376	391
WTR YR 1980	MEAN	400	MAX	780	MIN	217						

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

ONCE-DAILY												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	8.0	5.0	4.0	6.0	9.0	---	13.0	13.0	21.0	23.0	20.0
2	16.0	8.0	5.0	4.0	6.0	8.0	6.0	13.0	15.0	20.0	22.0	20.0
3	16.0	8.0	6.0	4.0	6.0	7.0	9.0	14.0	15.0	20.0	22.0	20.0
4	15.0	9.0	7.0	4.0	6.0	7.0	12.0	14.0	15.0	19.0	23.0	20.0
5	15.0	9.0	7.0	4.0	7.0	8.0	12.0	14.0	15.0	21.0	24.0	20.0
6	12.0	9.0	7.0	4.0	7.0	6.0	11.0	14.0	14.0	21.0	25.0	20.0
7	15.0	9.0	7.0	5.0	7.0	6.0	10.0	12.0	15.0	20.0	24.0	20.0
8	15.0	9.0	7.0	5.0	7.0	6.0	11.0	12.0	16.0	21.0	22.0	20.0
9	17.0	9.0	7.0	5.0	6.0	7.0	12.0	12.0	18.0	23.0	22.0	20.0
10	17.0	8.0	8.0	6.0	6.0	8.0	12.0	12.0	18.0	23.0	22.0	20.0
11	16.0	7.0	8.0	6.0	6.0	7.0	11.0	11.0	18.0	24.0	22.0	20.0
12	16.0	8.0	7.0	7.0	7.0	7.0	6.0	11.0	16.0	25.0	22.0	20.0
13	15.0	7.0	6.0	8.0	7.0	8.0	11.0	12.0	17.0	24.0	21.0	20.0
14	14.0	7.0	5.0	8.0	7.0	9.0	13.0	13.0	17.0	24.0	21.0	20.0
15	15.0	7.0	5.0	8.0	6.0	9.0	13.0	14.0	15.0	23.0	21.0	18.0
16	15.0	7.0	5.0	7.0	7.0	9.0	13.0	14.0	15.0	23.0	19.0	18.0
17	15.0	7.0	6.0	7.0	7.0	9.0	14.0	15.0	16.0	24.0	18.0	18.0
18	15.0	7.0	6.0	8.0	7.0	8.0	14.0	15.0	17.0	24.0	18.0	18.0
19	15.0	6.0	6.0	7.0	7.0	8.0	14.0	15.0	17.0	25.0	18.0	18.0
20	14.0	5.0	6.0	6.0	6.0	7.0	14.0	16.0	17.0	25.0	19.0	18.0
21	12.0	4.0	6.0	6.0	5.0	7.0	11.0	18.0	17.0	25.0	19.0	17.0
22	11.0	3.0	5.0	6.0	7.0	6.0	11.0	15.0	18.0	25.0	19.0	16.0
23	12.0	3.0	4.0	5.0	7.0	8.0	10.0	13.0	18.0	26.0	19.0	16.0
24	14.0	4.0	4.0	5.0	7.0	7.0	10.0	14.0	18.0	25.0	19.0	16.0
25	15.0	4.0	5.0	6.0	7.0	7.0	10.0	11.0	18.0	24.0	19.0	16.0
26	15.0	4.0	5.0	7.0	8.0	8.0	12.0	12.0	19.0	24.0	19.0	17.0
27	14.0	3.0	6.0	7.0	9.0	9.0	13.0	14.0	20.0	23.0	19.0	17.0
28	13.0	3.0	6.0	7.0	10.0	9.0	15.0	15.0	21.0	24.0	20.0	16.0
29	11.0	4.0	4.0	7.0	9.0	10.0	14.0	14.0	20.0	24.0	24.0	16.0
30	10.0	4.0	4.0	7.0	---	8.0	12.0	14.0	20.0	23.0	23.0	16.0
31	8.0	---	4.0	7.0	---	6.0	---	13.0	---	22.0	23.0	---
MEAN	14.0	6.5	6.0	6.0	7.0	7.5	11.5	13.5	17.0	23.0	21.0	18.5
WTR YR 1980	MEAN	12.5	MAX	26.0	MIN	3.0						

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.

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 except those for periods of ice effect, which are poor. Diversions above station for irrigation of about 15,000 acres (61 km²), mostly above station.

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

AVERAGE DISCHARGE.--60 years, 34.9 ft³/s (0.988 m³/s), 25,290 acre-ft/yr (31.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,750 ft³/s (135 m³/s) Aug. 24, 1927, gage height, 11.36 ft (3.463 m), present datum, from rating curve extended above 750 ft³/s (21 m³/s) on basis of slope-area measurement of peak flow; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1580 ft³/s (44.7 m³/s) Apr. 23, gage height, 5.79 ft (1.765 m); minimum daily, 1.2 ft³/s (0.034 m³/s) Oct. 7, 10.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	5.8	8.5	9.0	16	39	41	503	325	78	13	5.4
2	1.8	5.8	9.0	9.0	16	41	50	425	302	84	13	5.1
3	1.6	5.8	10	9.0	16	44	45	368	288	73	12	3.2
4	2.1	5.4	11	9.0	18	45	48	485	338	55	10	3.2
5	2.4	5.4	11	8.5	16	41	55	491	382	41	9.0	3.2
6	1.6	5.4	10	9.0	16	41	82	482	408	36	9.0	4.1
7	1.2	5.8	10	9.0	18	45	101	548	315	44	9.0	5.4
8	1.4	7.5	10	9.0	18	41	91	618	275	72	8.0	5.8
9	1.4	7.5	10	9.5	16	39	120	491	340	60	6.6	9.0
10	1.2	7.0	10	11	14	39	167	408	400	50	6.6	70
11	1.4	6.6	11	10	13	45	274	388	431	50	6.2	129
12	1.6	6.6	11	11	14	44	175	338	360	56	5.1	42
13	2.4	6.6	9.0	12	15	38	166	272	305	56	5.1	26
14	3.5	6.6	9.0	15	21	39	180	248	278	46	5.8	30
15	2.9	7.0	9.0	19	26	41	258	250	218	41	6.6	27
16	2.4	7.0	9.0	18	28	44	340	265	184	38	6.2	23
17	2.6	7.0	9.0	17	28	38	408	222	175	38	5.4	19
18	2.4	7.5	9.0	19	33	41	491	224	182	38	5.1	17
19	2.4	7.5	9.0	23	43	42	544	238	200	36	4.8	13
20	3.9	7.5	9.0	21	61	41	635	275	192	34	4.4	12
21	9.0	7.5	10	18	44	45	858	395	160	26	4.1	10
22	5.8	7.0	10	17	42	53	1080	494	155	21	3.8	9.0
23	5.4	7.0	9.5	14	37	51	1020	568	145	19	12	9.0
24	5.1	7.0	9.5	13	31	48	691	503	135	21	20	10
25	5.1	8.0	10	14	29	53	479	375	117	23	11	10
26	4.8	8.5	10	15	36	44	322	292	100	21	8.5	9.0
27	5.1	9.0	12	16	37	48	476	242	103	19	7.0	8.5
28	5.4	8.5	10	16	38	50	530	265	103	17	5.8	7.0
29	5.4	8.5	10	16	40	44	621	278	83	16	6.2	6.2
30	5.8	8.5	9.5	19	---	44	607	282	77	16	5.8	5.8
31	5.8	---	9.5	15	---	47	---	315	---	14	5.4	---
TOTAL	104.5	210.8	303.5	430.0	780	1355	10905	11548	7076	1239	240.5	536.9
MEAN	3.37	7.03	9.79	13.9	26.9	43.7	364	373	236	40.0	7.76	17.9
MAX	9.0	9.0	12	23	61	53	1080	618	431	84	20	129
MIN	1.2	5.4	8.5	8.5	13	38	41	222	77	14	3.8	3.2
AC-FT	207	418	602	853	1550	2690	21630	22910	14040	2460	477	1060
CAL YR 1979	TOTAL	31028.8	MEAN	85.0	MAX	834	MIN	1.0	AC-FT	61550		
WTR YR 1980	TOTAL	34729.2	MEAN	94.9	MAX	1080	MIN	1.2	AC-FT	68890		

SAN JUAN RIVER BASIN

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 mi² (2.67 km²).

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 poor. Recording rain gage at station.

EXTREMES FOR PERIOD OF RECORDS.--Maximum discharge, 245 ft³/s (6.94 m³/s) Mar. 1973, gage-height, 4.25 ft (1.295 m); no flow most of time.

EXTREMES FOR CURRENT YEAR.--1979 water year: Maximum discharge, 29 ft³/s (0.82 m³/s) Jan. 18, gage-height, 2.28 ft (0.695 m); no flow most of time.

1980 water year: Maximum discharge, 201 ft³/s (5.69 m³/s) Sept. 10, gage-height, 4.02 ft (1.225 m) from slope-area measurement of peak flow; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, MAY 1979 TO SEPTEMBER 1980

May 24, 1979	.69	November 8, 1979	.91	February 8, 1980	2.5
May 25, 1979	.25	December 26, 1979	.51	February 9, 1980	.69
June 3, 1979	.08	December 27, 1979	3.5	February 10, 1980	.30
June 4, 1979	.30	December 28, 1979	4.5	February 15, 1980	1.6
June 5, 1979	.12	December 29, 1979	.21	February 16, 1980	2.0
June 6, 1979	.51	January 9, 1980	1.1	February 17, 1980	.57
July 16, 1979	.45	January 10, 1980	.63	February 18, 1980	1.2
July 17, 1979	1.2	January 11, 1980	.47	February 19, 1980	2.0
July 18, 1979	.06	January 15, 1980	1.1	February 20, 1980	1.3
July 21, 1979	1.5	January 19, 1980	1.1	February 21, 1980	.66
August 13, 1979	1.9	January 20, 1980	1.3	March 11, 1980	.99
August 14, 1979	4.0	January 21, 1980	.11	March 12, 1980	.75
August 15, 1979	.21	January 28, 1980	.06	March 13, 1980	.06
November 6, 1979	.40	January 29, 1980	2.2	September 10, 1980	1.6
		January 30, 1980	.03	September 11, 1980	.06

Month	cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
May 1979	0.94				
June 1979	0.94	.51	0	0.03	1.9
July 1979	3.21	1.2	0	0.10	6.4
August 1979	6.11	4.0	0	0.20	12
November 1979	1.51	.91	0	0.05	3.0
December 1979	8.72	4.5	0	0.28	17
January 1980	8.10	2.2	0	0.26	16
February 1980	12.82	2.5	0	0.44	25
March 1980	1.80	.99	0	0.06	3.6
September 1980	1.66	1.6	0	0.06	3.3
WIR YR 1980	34.61	25	0	0.09	69

NOTE: Flow occurred only on days listed above.

SAN JUAN RIVER BASIN
09367400 LA PLATA RIVER TRIBUTARY NEAR FARMINGTON, NM
WATER-QUALITY RECORDS

449

PERIOD OF RECORD.--January to September 1980.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (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)
JAN											
09...	1715	.76	875	7.3	4.0	--	--	--	--	--	--
09...	1720	.76	675	7.6	4.0	13	0	4.3	.5	120	15
10...	0843	.39	875	7.3	4.0	--	--	--	--	--	--
AUG											
14...	1535	E12	950	6.8	--	--	--	--	--	--	--
14...	1536	E12	1250	6.7	--	--	--	--	--	--	--

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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 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											
09...	--	180	0	148	--	--	--	--	--	--	--
09...	2.4	240	0	197	170	4.6	.7	12	447	441	1.6
10...	--	120	0	98	--	--	--	--	--	--	--
AUG											
14...	--	340	--	280	--	--	--	--	--	--	--
14...	--	390	--	320	--	--	--	--	--	--	--

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)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P) (00671)	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- PENDE (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
JAN											
09...	--	--	--	--	--	--	1600	10	2.2	.2	--
09...	1.7	6.800	.50	8.9	2.500	.130	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
AUG											
14...	--	--	--	--	--	--	--	--	--	--	40
14...	--	--	--	--	--	--	--	--	--	--	40

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIIUM, 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)
JAN									
09...	1715	28	1	2300	0	1	0	140	0
AUG									
14...	1535	--	--	--	--	--	--	--	--
14...	1536	--	--	--	--	--	--	--	--

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									
09...	36	0	540	4	32000	1600	340	0	5300
AUG									
14...	--	--	--	--	1000000	--	--	--	34000
14...	--	--	--	--	560000	--	--	--	25000

SAN JUAN RIVER BASIN
09367400 LA PLATA RIVER TRIBUTARY NEAR FARMINGTON, NM
WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
JAN 09...		10	.6	.0	13	9	2	0	1200
AUG 14...		---	---	---	---	---	---	---	---
14...		---	---	---	---	---	---	---	---

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 (PCI/L METHOD) (09511)	URANIUM DIS-SOLVED, EXTRACTION (UG/L) (80020)
JAN 10...	0843	<8.8	700	6.0	370	5.8	350	.10	.33

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (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)
JAN 09...		1715	.76	4.0	34100	70
10...	0843		.39	4.0	12500	13
						82
						97

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 mi² (1,510 km²).

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 m³/s), which are poor. Diversions for irrigation of about 24,000 acres (97 km²) above station.

AVERAGE DISCHARGE.--42 years, 26.9 ft³/s (0.762 m³/s), 19,490 acre-ft/yr (24.0 hm³/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, 1,420 ft³/s (40.2 m³/s) Apr. 23, gage height, 5.22 ft (1.591 m); minimum daily, 0.02 ft³/s (0.001 m³/s) Oct. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.22	9.0	16	28	45	44	581	250	3.8	.31	.96
2	.02	.22	16	17	29	43	50	476	232	2.5	.25	1.0
3	.03	.22	13	15	28	44	55	380	218	1.6	.23	.99
4	.03	.22	12	14	26	46	55	425	262	1.6	.20	.93
5	.03	.24	13	14	27	46	61	487	310	1.6	.19	.86
6	.03	.24	13	14	26	41	78	514	350	1.6	.17	.94
7	.03	.28	13	16	27	43	126	599	339	1.7	.14	.90
8	.04	2.7	13	16	27	42	97	755	296	2.3	.13	.90
9	.04	.79	14	19	26	38	127	665	318	14	.13	.96
10	.05	.77	14	23	23	37	174	453	380	4.0	.17	14
11	.05	.92	14	25	20	41	283	384	433	2.1	.23	136
12	.04	1.1	14	21	20	48	275	341	362	2.5	.18	7.4
13	.04	1.2	13	20	21	41	207	275	311	2.0	.13	3.5
14	.05	1.3	11	21	22	39	218	219	289	3.0	.10	3.0
15	.05	1.3	11	35	40	41	315	192	225	2.4	.10	2.0
16	.05	1.4	12	28	54	44	434	215	170	1.9	.09	1.5
17	.05	1.5	16	25	53	38	482	151	118	1.8	.09	1.4
18	.08	1.5	15	29	52	41	521	146	114	1.5	.08	1.4
19	.12	1.6	17	28	103	43	619	163	145	1.3	.08	1.3
20	.14	1.7	17	26	250	42	713	193	152	1.2	.07	1.3
21	8.2	1.6	19	27	60	42	858	284	100	1.2	.05	1.2
22	.73	1.6	18	30	45	49	1070	423	84	1.1	.08	1.1
23	.48	2.1	17	27	40	54	1110	542	83	1.0	3.3	1.0
24	.33	2.1	15	26	45	51	876	637	62	.93	47	.90
25	.24	4.2	20	25	47	49	546	423	43	.92	1.9	.80
26	.20	3.2	18	25	40	49	419	296	45	.84	1.5	.70
27	.20	3.2	24	27	45	46	431	212	53	.60	1.3	.65
28	.20	3.1	20	29	49	47	519	189	44	.57	1.2	.63
29	.20	2.9	19	31	49	47	718	201	23	.53	1.0	.61
30	.39	3.7	18	34	---	42	764	226	9.0	.47	.99	.60
31	.30	---	17	29	---	44	---	248	---	.38	.90	---
TOTAL	12.46	47.12	475.0	732	1322	1363	12245	11295	5820.0	62.94	62.29	189.43
MEAN	.40	1.57	15.3	23.6	45.6	44.0	408	364	194	2.03	2.01	6.31
MAX	8.2	4.2	24	35	250	54	1110	755	433	14	47	136
MIN	.02	.22	9.0	14	20	37	44	146	9.0	.38	.05	.60
AC-FT	25	93	942	1450	2620	2700	24290	22400	11540	125	124	376
CAL YR 1979	TOTAL	33910.19	MEAN	92.9	MAX	1260	MIN	.01	AC-FT	67260		
WTR YR 1980	TOTAL	33626.24	MEAN	91.9	MAX	1110	MIN	.02	AC-FT	66700		

SAN JUAN RIVER BASIN
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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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											
29...	1200	.20	2380	8.2	11.5	14.5	--	630	330	170	49
NOV											
20...	1115	1.8	4200	8.3	2.5	2.5	11.1	1300	1000	320	130
DEC											
19...	1530	17	2400	8.2	9.5	1.0	12.0	1000	690	240	100
JAN											
21...	1145	27	2120	8.4	.0	3.0	11.6	850	580	200	85
FEB											
19...	1045	130	1550	8.3	13.5	7.0	9.7	540	88	130	52
MAR											
17...	1030	39	2000	8.4	6.5	5.5	10.8	970	720	190	120
APR											
09...	1015	158	1715	8.4	16.0	8.0	9.8	800	580	158	99
MAY											
17...	1015	226	740	8.4	24.5	10.5	9.1	--	--	--	--
27...	1015	203	740	8.4	24.5	10.5	9.1	330	190	73	35
JUN											
19...	1400	174	850	8.3	32.5	22.0	7.4	360	220	80	38
JUL											
28...	1515	.57	3950	8.3	37.0	31.0	7.4	1400	1200	110	270
AUG											
26...	2000	1.5	3450	8.3	21.0	22.5	6.6	1100	840	285	99
SEP											
27...	1630	.65	3440	8.2	27.0	24.5	6.8	1100	880	270	110

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 (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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											
29...	300	5.3	4.6	366	0	300	740	180	.8	11	1650
NOV											
20...	680	8.1	7.1	362	0	300	2200	150	.5	9.0	3650
DEC											
19...	220	3.0	3.0	380	0	310	1000	62	.3	13	1960
JAN											
21...	180	2.7	4.1	320	4	270	860	53	.4	9.6	1700
FEB											
19...	160	3.0	3.8	550	0	450	630	28	.7	8.8	1190
MAR											
17...	130	1.8	3.3	300	4	253	870	46	.3	9.5	1570
APR											
09...	79	1.4	3.5	260	6	220	690	39	.3	9.5	1360
MAY											
17...	--	--	--	160	4	140	--	--	--	--	--
27...	39	.9	2.2	160	4	140	240	11	.3	9.1	500
JUN											
19...	45	1.0	1.9	176	0	140	280	14	.4	8.7	595
JUL											
28...	540	7.6	6.1	262	0	215	1700	290	.6	3.7	3220
AUG											
26...	420	5.9	9.0	314	0	258	1600	110	.6	11	2860
SEP											
27...	430	5.6	6.4	270	0	221	1500	190	.6	10	2850

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N) (00630)	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- PENDE (MG/L) AS C) (00689)
OCT 29...	1640	.01	.090	.36	.46	.010	140	30	0	7.6	.0
NOV 20...	3680	.03	.100	--	--	.080	180	30	--	13	--
DEC 19...	1830	.36	.020	.80	1.2	.150	100	10	--	9.1	2.2
JAN 21...	1550	.71	.020	2.2	2.9	.490	90	30	--	8.1	6.0
FEB 19...	1280	.50	.130	21	22	5.400	60	80	--	9.1	27
MAR 17...	1520	.26	.060	.76	1.1	.160	60	<10	--	6.5	.9
APR 09...	1210	1.1	.180	19	20	1.900	50	<10	18	9.3	13
MAY 17...	--	--	--	--	--	--	--	--	--	--	--
27...	493	.14	.000	1.3	1.4	.570	30	30	--	5.0	6.7
JUN 19...	555	.17	.050	.87	1.1	.030	50	20	--	8.4	1.7
JUL 28...	3050	.03	.000	1.2	1.2	.030	190	24	81	12	.4
AUG 26...	2690	.27	.060	1.7	2.1	.350	190	12	210	15	1.8
SEP 27...	2650	.00	.010	.50	.51	.010	200	40	--	8.2	.2

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L) AS AL) (01106)	ARSENIC TOTAL (UG/L) AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L) AS AS) (01000)	BARIIUM, TOTAL RECOV- ERABLE (UG/L) AS BA) (01007)	BARIIUM, 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...	1200	0	1	1	300	0	0	0	140	0	0	0
APR 09...	1015	20	--	1	--	60	--	<1	50	--	<1	--
JUL 28...	1515	10	2	1	100	30	0	<1	190	0	<1	10
AUG 26...	2000	10	--	1	--	180	--	<1	190	--	<1	--

DATE	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, 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)
OCT 29...	0	2	0	11	0	30	6	0	50	0	1000	0
APR 09...	0	--	<3	--	<10	<10	--	25	--	30	--	18
JUL 28...	10	0	<3	9	<10	24	6	<10	60	21	220	81
AUG 26...	0	--	<3	--	<10	12	--	<10	--	54	--	210

DATE	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)	NICKEL, DIS- SOLVED (UG/L) AS NI) (01065)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L) AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L) AS SE) (01145)	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 29...	.0	.0	3	1	3	1	0	0	0	.0	0	0
APR 09...	--	.0	--	<10	--	0	--	6	1300	<6.0	--	8
JUL 28...	.1	.1	4	<10	3	2	0	0	2000	<3.0	20	8
AUG 26...	--	.1	--	<10	--	0	--	2	4400	<6.0	--	8

SAN JUAN RIVER BASIN
09367500 LA PLATA RIVER NEAR FARMINGTON, NM -- Continued
WATER-QUALITY RECORDS

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS) (01003)	BARIIUM, 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)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)
OCT 29...	1200	2	90	0	0	1	0	2
DATE	TIME	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	MOLYB- DENUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI) (01063)	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI) (01068)	SELE- NIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI) (01148)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)
OCT 29...	0	170	.01	0	0	0	0	4

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90) (80060)
OCT 29...	1200	<31	1.9	<12	1.4	<11	1.4
APR 09...	1015	<18	100	8.9	84	9.2	86
JUL 28...	1515	<40	<.4	<22	<.4	<21	<.4

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 29...	1200	310	--
NOV 20...	1115	16	438
DEC 19...	1530	17	470
JAN 21...	1145	80	2340
FEB 19...	1045	K140	14000
MAR 17...	1030	27	87
APR 09...	1015	730	1700
JUN 19...	1400	390	750
JUL 28...	1515	190	1600
AUG 26...	2000	150	950
SEP 27...	1630	67	120

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	OCT 29,79		NOV 20,79		DEC 19,79		FEB 19,80		MAR 17,80		APR 9,80	
TIME	1200		1115		1530		1045		1030		1015	
TOTAL CELLS/ML	490		120		290		3200		1300		7500	
DIVERSITY: DIVISION	0.3		1.0		0.7		0.0		1.1		1.1	
..CLASS	0.3		1.0		0.7		0.0		1.1		1.1	
..ORDER	0.3		1.0		0.8		0.0		1.2		1.1	
...FAMILY	0.3		1.3		1.0		1.8		2.1		2.9	
....GENUS	0.3		1.5		1.0		2.5		2.7		3.2	
ORGANISM	CELLS	PER-	CELLS	PER-	CELLS	PER-	CELLS	PER-	CELLS	PER-	CELLS	PER-
	/ML	CENT	/ML	CENT	/ML	CENT	/ML	CENT	/ML	CENT	/ML	CENT
CHLOROPHYTA (GREEN ALGAE)												
..CHLOROPHYCEAE												
...CHLOROCOCCALES												
....OOCYSTACEAE												
.....ANKISTRODESMUS	--	-	--	-	--	-	--	-	14	1	--	-
.....CHODATELLA	--	-	--	-	--	-	--	-	--	-	--	-
.....OOCYSTIS	--	-	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE												
....TETRASTRUM	--	-	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	--	-	82	1
....CHLOROGONIUM	--	-	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA												
..BACILLARIOPHYCEAE												
...CENTRALES												
....COSCINODISCAEAE												
.....CYCLOTELLA	--	-	--	-	5	2	--	-	14	1	*	0
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	--	-	--	-	43	3	82	1
....COCCONEIS	--	-	--	-	--	-	--	-	--	-	82	1
....RHOICOSPHENIA	--	-	--	-	--	-	--	-	14	1	55	1
..CYMBELLACEAE												
....AMPHORA	--	-	--	-	--	-	--	-	--	-	55	1
....CYMBELLA	--	-	--	-	--	-	1000#	32	57	4	1300#	18
....EPITHEMIA	--	-	--	-	--	-	--	-	--	-	140	2
...FRAGILARIACEAE												
....FRAGILARIA	--	-	--	-	--	-	--	-	--	-	55	1
....SYNEDRA	--	-	--	-	10	4	140	5	--	-	110	1
...GOMPHONEMACEAE												
....GOMPHONEMA	--	-	--	-	--	-	430	14	130	10	820	11
...NAVICULACEAE												
....AMPHIPLEURA	--	-	--	-	--	-	720#	23	--	-	--	-
....CALONEIS	--	-	--	-	--	-	--	-	--	-	*	0
....ENTOMONEIS	--	-	--	-	--	-	--	-	--	-	--	-
....GYROSIGMA	--	-	--	-	--	-	290	9	--	-	*	0
....MASTOGLIOIA	--	-	5	4	--	-	--	-	--	-	--	-
....NAVICULA	26	5	20#	17	10	4	430	14	43	3	550	7
...NITZSCHACEAE												
....DENTICULA	--	-	--	-	--	-	--	-	--	-	--	-
....NITZSCHIA	--	-	20#	17	25	9	140	5	140	11	250	3
...SURIRELLACEAE												
....SURIRELLA	--	-	--	-	--	-	--	-	43	3	710	10
CRYPTOPHYTA (CRYPTOMONADS)												
..CRYPTOPHYCEAE												
...CRYPTOMONADALES												
....CRYPTOCHRYSIDACEAE												
.....CHROOMONAS	--	-	--	-	--	-	--	-	--	-	--	-
...CRYPTOMONADACEAE												
....CRYPTOMONAS	--	-	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
..CYANOPHYCEAE												
...CHROOCOCCALES												
....CHROOCOCCACEAE												
.....ANACYSTIS	--	-	--	-	--	-	--	-	--	-	--	-
...HORMOGONALES												
....NOSTOCACEAE												
.....ANABAENA	--	-	75#	63	--	-	--	-	--	-	1100	14
.....APHANIZOMENON	--	-	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIAEAE												
....LYNGBYA	--	-	--	-	--	-	--	-	490#	38	--	-
....OSCILLATORIA	460#	95	--	-	240#	82	--	-	290#	22	2000#	26
....PHORMIDIUM	--	-	--	-	--	-	--	-	--	-	--	-
...RIVULARIACEAE												
....RAPHIDIOPSIS	--	-	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
..EUGLENOPHYCEAE												
...EUGLENALES												
....EUGLENACEAE												
.....EUGLENA	--	-	--	-	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-	--	-	14	1	55	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
09367500 LA PLATA RIVER NEAR FARMINGTON, NM -- Continued
WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	MAY 22,80		JUN 19,80		JUL 28,80		AUG 26,80		SEP 27,80	
TIME	1015		1400		1515		2000		1630	
TOTAL CELLS/ML	1700		230		1200		320		240	
DIVERSITY: DIVISION	0.7		1.2		1.3		1.2		2.1	
...CLASS	0.7		1.2		1.3		1.2		2.1	
...ORDER	0.7		1.7		1.5		1.6		2.7	
...FAMILY	0.9		1.7		1.9		2.1		3.2	
...GENUS	0.9		1.7		2.4		2.5		3.4	
ORGANISM	CELLS	PER-	CELLS	PER-	CELLS	PER-	CELLS	PER-	CELLS	PER-
	/ML	CENT	/ML	CENT	/ML	CENT	/ML	CENT	/ML	CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	14	6	39	3	--	-	13	5
....CHODATELLA	--	-	--	-	13	1	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	13	5
...SCENEDESMACEAE										
....TETRASTRUM	--	-	--	-	51	4	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	29	13	13	1	29	9	26	11
....CHLOROGONIUM	--	-	--	-	--	-	--	-	13	5
CHRYSOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	14	6	39	3	29	9	51#	21
...PENNIALES										
...ACHNANTHACEAE										
....ACHNANTHES	140	9	--	-	--	-	--	-	--	-
....COCCONEIS	--	-	--	-	--	-	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE										
....AMPHORA	--	-	--	-	--	-	--	-	--	-
....CYMBELLA	--	-	--	-	--	-	--	-	--	-
....EPITHEMIA	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE										
....FRAGILARIA	--	-	--	-	--	-	--	-	13	5
....SYNEDRA	--	-	--	-	140	12	--	-	--	-
...GOMPHONEMACEAE										
....GOMPHONEMA	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....AMPHIPLEURA	--	-	--	-	--	-	--	-	--	-
....CALONEIS	--	-	--	-	--	-	--	-	--	-
....ENTOMONEIS	--	-	--	-	--	-	14	5	--	-
....GYROSIGMA	--	-	--	-	--	-	--	-	--	-
....MASTOGLIOIA	--	-	--	-	--	-	--	-	--	-
....NAVICULA	--	-	--	-	--	-	57#	18	13	5
...NITZSCHACEAE										
....DENTICULA	--	-	--	-	--	-	14	5	--	-
....NITZSCHIA	72	4	140#	63	230#	19	100#	32	13	5
...SURIPELLACEAE										
....SURIPELLA	72	4	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
..CRYPTOPHYCEAE										
...CRYPTOMONADALES										
....CRYPTOCHRYSIDACEAE										
...CHROOMONAS	--	-	--	-	--	-	--	-	26	11
...CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	--	-	26	11
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROOCOCCALES										
....CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	--	-	--	-	26	11
...HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	--	-	--	-
....APHANIZOMENON	1400#	83	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	--	-	--	-	--	-
....OSCILLATORIA	--	-	--	-	490#	41	72#	23	--	-
....PHORMIDIUM	--	-	--	-	180#	15	--	-	--	-
...RIVULARIACEAE										
....RAPHIDIOPSIS	--	-	29	13	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	13	5
....TRACHELOMONAS	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

09367500 LA PLATA RIVER NEAR FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OF OCTOBER 1979 TO SEPTEMBER 1980
PERIPHYTON

		LENGTH OF EXPO- SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00022)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M (00573)	CHLOR-A PERI- PHYTON CHROMO- FLUOROM (MG/M2) (70957)	CHLOR-B PERI- PHYTON CHROMO- FLUOROM (MG/M2) (70958)	SAMPLING METHOD			
DATE	TIME						Polyethylene strip			
NOV 20...	1115	21	2.99	2.91	.000	.000				
INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980										
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (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. FALL DIAM. % FINER THAN .062 MM (70342)
OCT 29...	1200	.20	14.5	184	18	36	52	63	72	80
NOV 20...	1115	1.8	2.5	554	--	--	--	--	--	--
DEC 19...	1530	17	1.0	1780	--	--	--	--	--	--
JAN 21...	1145	27	3.0	3830	--	--	--	--	--	--
FEB 19...	1045	130	7.0	23700	--	--	--	--	--	--
MAR 17...	1030	39	5.5	849	--	--	--	--	--	--
APR 09...	1015	158	8.0	5590	22	27	--	37	--	65
22...	1130	1160	--	21100	--	--	--	--	--	--
MAY 12...	1300	343	13.5	4760	--	--	--	--	--	--
27...	1015	203	10.5	2470	--	--	--	--	--	--
JUN 02...	1315	240	14.5	1980	--	--	--	--	--	--
19...	1400	174	22.0	1630	--	--	--	--	--	--
JUL 01...	1415	7.2	26.5	98	--	--	--	--	--	--
28...	1515	.57	31.0	141	--	--	--	--	--	--
AUG 04...	1615	.18	29.0	114	--	--	--	--	--	--
26...	2000	1.5	22.5	644	--	--	--	--	--	--
SEP 01...	1530	1.0	26.0	223	--	--	--	--	--	--
27...	1630	.65	24.5	93	--	--	--	--	--	--

09367500 SAN JUAN RIVER BASIN
LA PLATA RIVER NEAR FARMINGTON, NM -- Continued
WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

[illegible][illegible]

09367540 SAN JUAN RIVER NEAR FRUITLAND, NM

LOCATION.--Lat 36°44'25", long 108°24'09", in NW¼SE¼ sec.10, T.29 N., R.15 W., 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 mi² (20,750 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to September, 1980 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,150 ft (1,570 m), from topographic map.

REMARKS.--Water-discharge records fair. Diversion for irrigation of about 95,000 acres (384 km²) above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,200 ft³/s (402 m³/s) May 28, 1979, gage height, 8.65 ft (2.637 m); minimum, 320 ft³/s (9.06 m³/s) Aug. 14, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in October 1911 at this location.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,760 ft³/s (276 m³/s) June 12, gage height, 7.56 ft (2.304 m); maximum gage height, 7.66 ft (2.336 m) May 23; minimum daily discharge, 550 ft³/s (15.6 m³/s) Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1170	917	1940	2120	2140	2720	1800	5100	6150	3880	1400	1400
2	1160	917	2080	2110	2110	2740	1480	5020	5950	3720	1340	1360
3	1120	917	2100	2120	2120	2720	1270	5080	5610	3520	1410	1310
4	1120	957	2100	2120	2110	2770	1300	5380	6080	3330	1410	1270
5	1180	941	2140	2110	2070	2760	1490	5820	6470	3150	1370	1330
6	1210	925	2190	2100	2060	2720	1780	6130	6920	2910	1320	1370
7	1100	982	2180	2100	2100	2730	2290	6220	7250	2670	1270	1320
8	890	1120	2160	2110	2120	2840	1850	6740	6720	2580	1230	1280
9	767	1100	2180	2120	2100	2820	1970	6470	6890	2720	1360	1470
10	576	917	2160	2200	2110	2820	2120	5680	8260	2480	1380	2010
11	550	723	2150	2230	2070	3400	2490	5200	8980	2310	1320	3920
12	602	640	2180	2230	2050	3380	2210	5160	9320	2140	1270	2980
13	589	588	2120	2140	2050	3260	1940	4600	8820	2220	1250	2280
14	667	582	2120	2190	2100	3270	1950	3930	8400	2200	1250	2000
15	885	588	2100	2360	2320	3310	2210	3650	7820	2080	1300	1820
16	941	588	2100	2320	2740	3380	2700	3700	6950	1940	1330	1710
17	917	576	2110	2200	2460	3400	3070	3300	6510	1850	1360	1610
18	845	569	2140	2190	2360	3430	3490	3530	6560	1720	1340	1540
19	798	569	2160	2290	2780	3450	4080	3680	6600	1670	1320	1470
20	805	595	2180	2400	3520	3470	4870	3850	6670	1570	1270	1340
21	1320	562	2200	2330	2960	3480	5700	4610	6290	1480	1250	1290
22	1210	702	2250	2200	2860	3620	6740	6000	5970	1430	1250	1240
23	1080	798	2230	2160	2550	3620	6780	7140	5590	1340	1220	1170
24	999	829	2180	2160	2400	3620	5730	7380	5590	1360	1440	1170
25	1010	837	2160	2120	2330	3400	5090	6410	5440	1380	1850	1120
26	1020	869	2160	2110	2610	3190	4780	5060	5160	1430	2110	1160
27	941	1030	2310	2150	2620	2970	4820	4720	5040	1470	1870	1170
28	861	1170	2280	2150	2650	2920	4800	4720	4820	1420	1680	1140
29	853	1420	2230	2180	2690	2340	5100	5260	4380	1350	1550	1120
30	869	1610	2190	2270	---	2120	5220	5740	4010	1350	1470	1110
31	901	---	2150	2230	---	2200	---	6020	---	1400	1430	---
TOTAL	28956	25538	66930	67820	69160	94870	101120	161300	195220	66070	43620	46480
MEAN	934	851	2159	2188	2385	3060	3371	5203	6507	2131	1407	1549
MAX	1320	1610	2310	2400	3520	3620	6780	7380	9320	3880	2110	3920
MIN	550	562	1940	2100	2050	2120	1270	3300	4010	1340	1220	1110
AC-FT	57430	50650	132800	134500	137200	188200	200600	319900	387200	131000	86520	92190
CAL YR 1979	TOTAL	1396847	MEAN	3827	MAX	13700	MIN	488	AC-FT	2771000		
WTR YR 1980	TOTAL	967084	MEAN	2642	MAX	9320	MIN	550	AC-FT	1918000		

SAN JUAN BASIN
09367540 SAN JUAN RIVER NEAR FRUITLAND, NM -- Continued
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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 25...	1345	1010	603	8.5	23.5	12.5	10.5	210	89	67	11
NOV 19...	1630	542	790	8.5	8.5	6.0	11.8	270	130	86	14
DEC 18...	1315	2160	353	7.9	7.0	4.0	12.0	86	0	27	4.6
JAN 23...	1030	2140	430	8.0	2.5	3.0	11.5	150	46	45	7.9
FEB 19...	1030	2500	520	8.2	12.0	7.0	10.1	170	56	52	10
MAR 19...	0945	3480	385	8.3	9.0	6.0	10.4	140	46	42	9.4
APR 07...	1200	2610	627	8.3	9.0	9.5	9.3	240	99	67	17
MAY 22...	1000	5600	315	8.3	26.0	13.0	8.4	130	41	40	7.7
JUN 18...	1200	6580	250	8.0	31.5	13.5	9.0	97	30	30	5.3
JUL 28...	1000	1470	445	8.4	34.0	20.0	9.5	160	58	51	8.6
AUG 26...	1200	2110	450	8.2	28.0	17.5	8.3	170	72	51	9.4
SEP 25...	1200	1140	438	8.3	23.5	14.0	11.5	160	62	48	9.0

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 (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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 25...	45	1.4	3.1	140	6	120	190	16	.3	9.2	396
NOV 19...	62	1.6	3.6	172	2	140	230	23	.4	6.3	534
DEC 18...	16	.8	1.8	120	0	98	56	1.9	.2	12	165
JAN 23...	33	1.2	2.2	120	0	98	110	7.6	.2	12	288
FEB 19...	47	1.6	2.3	140	0	110	150	9.0	.3	13	344
MAR 19...	28	1.0	1.9	114	0	94	94	6.5	.2	11	260
APR 07...	40	1.2	2.8	170	0	140	180	11	.3	8.7	417
MAY 22...	13	.5	1.4	110	0	90	67	3.9	.2	6.3	201
JUN 18...	9.5	.4	1.3	82	0	67	50	1.0	.2	6.0	163
JUL 28...	26	.9	2.3	120	2	102	110	8.7	.4	5.9	280
AUG 26...	26	.9	2.3	120	0	98	100	9.0	.3	9.3	285
SEP 25...	28	1.0	2.5	120	0	98	120	7.9	.3	8.8	288

SAN JUAN BASIN
09367540 SAN JUAN RIVER NEAR FRUITLAND, NM -- Continued
WATER-QUALITY RECORDS

461

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N) (00630)	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 (MG/L) AS C) (00689)
OCT 25...	418	.07	.100	.56	.73	.050	60	11	23	14	.2
NOV 19...	512	.05	.040	.48	.57	.040	70	140	--	9.7	.1
DEC 18...	179	.06	.010	.45	.52	.070	120	20	--	5.9	--
JAN 23...	277	.50	.040	.45	.99	.170	40	270	--	6.2	.7
FEB 19...	284	.30	.120	2.0	2.4	.860	30	30	--	3.9	9.3
MAR 19...	249	.15	.020	.49	.66	.190	40	30	--	4.1	.9
APR 07...	412	.39	.350	3.1	3.8	1.500	20	27	28	9.5	4.6
MAY 22...	194	.10	.020	.81	.93	.310	30	40	--	4.4	4.3
JUN 18...	144	.11	.010	.60	.72	.100	30	40	--	5.7	1.4
JUL 28...	275	.01	.000	.67	.68	.060	50	11	16	3.2	1.0
AUG 26...	267	.12	.000	.87	.99	.150	60	21	6	6.1	1.7
SEP 25...	284	.00	.000	.76	.76	.040	60	20	--	4.6	.7

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L) AS AL) (01106)	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 25...	1345	0	2	1	300	60	0	<1	60	1	<1	0
APR 07...	1200	30	--	0	--	100	--	<1	20	--	<1	--
JUL 28...	1000	10	2	2	100	80	0	<1	50	1	<1	20
AUG 26...	1200	10	--	1	--	70	--	<1	60	--	<1	--

DATE	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, 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)
OCT 25...	0	0	<3	18	<10	11	10	0	30	31	80	23
APR 07...	0	--	<3	--	<10	27	--	23	--	28	--	28
JUL 28...	0	0	<3	19	<10	11	10	13	30	21	80	16
AUG 26...	0	--	<3	--	<10	21	--	<10	--	20	--	6

DATE	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)	NICKEL, DIS- SOLVED (UG/L) AS NI) (01065)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L) AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L) AS SE) (01145)	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 25...	.0	.0	0	<10	4	0	1	1	900	<6.0	20	13
APR 07...	--	.0	--	<10	--	0	--	2	870	<6.0	--	32
JUL 28...	.2	.0	1	<10	3	3	1	1	640	<6.0	40	<3
AUG 26...	--	.1	--	<10	--	1	--	1	650	<6.0	--	9

SAN JUAN BASIN

09367540 SAN JUAN RIVER NEAR FRUITLAND, NM -- Continued

WATER-QUALITY RECORDS

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
OCT 25...	1345	<7.0	2.6	3.9	1.8	3.6	1.8
APR 07...	1200	<6.4	160	3.9	83	4.0	86
JUL 28...	1000	<3.4	1.0	3.5	.8	3.3	.8

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 25...	1345	80	69
DEC 18...	1315	3	14
JAN 23...	1030	29	86
FEB 19...	1030	620	440
MAR 19...	0945	113	650
APR 07...	1200	200	--
MAY 22...	1000	180	1700
JUN 18...	1200	5200	650
JUL 28...	1000	590	3800
AUG 26...	1200	0	120
SEP 25...	1200	K2100	260

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	OCT 25,79	NOV 19,79	DEC 18,79	FEB 19,80	MAR 19,80	APR 7,80
TIME	1345	1630	1315	1030	0945	1200
TOTAL CELLS/ML	1500	710	1300	2100	1900	6500
DIVERSITY: DIVISION	0.9	0.3	0.3	0.0	1.0	0.5
..CLASS	0.9	0.3	0.3	0.0	1.0	0.5
..ORDER	0.9	0.5	0.5	0.5	1.2	0.5
...FAMILY	1.4	2.4	3.1	2.6	3.1	2.7
....GENUS	1.4	2.4	3.1	3.0	3.3	3.0
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
...OOCYSTACEAE						
....ANKISTRODESMUS	--	--	10	1	--	--
....CHLORELLA	--	--	12	2	--	--
...SCENEDESMACEAE						
....ACTINASTRUM	--	--	--	--	14	1
....SCENEDESMUS	--	--	20	2	--	--
...VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	--	--	12	2	14	1
...ZYGNEMATALES						
...DESMIDIACEAE						
....CLOSTERIUM	--	--	6	1	--	--
....COSMARIUM	--	--	--	--	--	--
CHRYSOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
...BIDDULPHIACEAE						
....BIDDULPHIA	--	--	--	55	3	--
...COSCINODISCACEAE						
....CYCLOTELLA	--	--	18	3	27	1
....MELOSIRA	--	--	20	2	140	6
...PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	13	1	--	--	--	--
....COCCONEIS	--	--	6	1	190	9
....RHOICOSPHEINIA	--	--	--	--	27	1
...CYMBELLACEAE						
....CYMBELLA	13	1	43	6	210	17
....EPITHEMIA	--	--	--	--	300	14
....RHOPALODIA	--	--	--	--	27	1
...DIATOMACEAE						
....DIATOMA	--	--	6	1	27	1
...FRAGILARIACEAE						
....FRAGILARIA	--	--	--	30	2	--
....SYNEDRA	13	1	55	8	10	1
...GOMPHONEMACEAE						
....GOMPHONEMA	13	1	61	9	110	5
...MERIDIONACEAE						
....MERIDION	--	--	--	--	55	3
...NAVICULACEAE						
....AMPHIPLEURA	--	--	--	--	41	2
....CALONEIS	--	--	--	--	14	1
....FRUSTULIA	--	--	--	--	14	1
....GYROSIGMA	--	--	--	--	27	1
....MASTOGLOIA	--	--	--	--	14	1
....NAVICULA	260	17	340	49	820	39
....PINNULARIA	--	--	--	--	96	5
....PLEUROSIGMA	--	--	--	--	1000	16
...NITZSCHIA						
....NITZSCHIA	180	12	130	19	27	1
...SURIPELLACEAE						
....CYMATOPLEURA	--	--	--	--	180	9
....SURIPELLA	--	--	71	6	110	6
...TABELLARIACEAE						
....TABELLARIA	--	--	6	1	--	--
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...CHROOCOCCALES						
...CHROOCOCCACEAE						
....ANACYSTIS	--	--	--	--	550	29
...HORMOGONALES						
...OSCILLATORIACEAE						
....LYNGBYA	--	--	--	--	--	620
....OSCILLATORIA	1000	68	--	--	--	10
EUGLENOPHYTA (EUGLENOIDS)						
..EUGLENOPHYCEAE						
...EUGLENALES						
...EUGLENACEAE						
....TRACHELOMONAS	--	--	10	1	14	1

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

SAN JUAN BASIN
09367540 SAN JUAN RIVER NEAR FRUITLAND, NM -- Continued
WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE TIME	MAY 22,80		JUN 18,80		JUL 28,80		AUG 26,80		SEP 25,80	
TOTAL CELLS/ML	1000		1200		1000		1200		1200	
DIVERSITY: DIVISION	1.2		1.2		0.1		0.1		0.2	
...CLASS	1.2		1.2		0.1		0.1		0.2	
...ORDER	1.5		1.5		0.8		0.2		0.2	
...FAMILY	2.4		2.1		2.3		1.9		1.7	
...GENUS	2.7		2.1		2.6		1.9		1.7	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	13	3	--	-	--	-	--	-
....CHLORELLA	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	29	3	13	3	13	1	--	-	13	3
..ZYGNEMATALES										
...DESMIDIACEAE										
....CLOSTERIUM	--	-	--	-	--	-	--	-	--	-
....COSMARIUM	--	-	--	-	--	-	19	1	--	-
CHRYSOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
...BIDDULPHIACEAE										
....BIDDULPHIA	--	-	--	-	--	-	--	-	--	-
...COSCINODISCAEAE										
....CYCLOTELLA	29	3	26	7	51	4	19	1	--	-
....MELOSIRA	86	8	--	-	190#	15	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	140	14	13	3	13	1	--	-	13	3
....COCONEIS	--	-	--	-	13	1	--	-	--	-
....RHOICOSPHEINIA	57	6	--	-	--	-	--	-	13	3
...CYMBELLACEAE										
....CYMBELLA	29	3	13	3	77	6	--	-	13	3
....EPITHEMIA	--	-	--	-	26	2	130	7	--	-
....RHOPALODIA	--	-	--	-	--	-	--	-	--	-
..DIATOMACEAE										
...DIATOMA	29	3	13	3	--	-	38	2	--	-
...FRAGILARIACEAE										
....FRAGILARIA	--	-	--	-	--	-	--	-	--	-
....SYNEDRA	57	6	--	-	170	13	150	8	13	3
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	--	-	--	-	--	-	--	-
...MERIDIONACEAE										
....MERIDION	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....AMPHIPLEURA	--	-	--	-	--	-	--	-	--	-
....CALONEIS	--	-	--	-	--	-	--	-	--	-
....FRUSTULIA	--	-	--	-	--	-	--	-	--	-
....GYROSIGMA	--	-	--	-	--	-	--	-	--	-
....MASTOGLIOIA	--	-	--	-	--	-	--	-	--	-
...NAVICULA	29	3	51	13	300#	23	420#	22	240#	59
...PINNULARIA	--	-	--	-	--	-	--	-	--	-
...PLEUROSIGMA	--	-	--	-	--	-	--	-	--	-
...NITZSCHACEAE										
....NITZSCHIA	86	8	13	3	420#	33	1100#	56	100#	25
...SURIRELLACEAE										
....CYMATOPLEURA	--	-	--	-	--	-	19	1	--	-
....SURIRELLA	--	-	--	-	--	-	38	2	--	-
...TABELLARIACEAE										
....TABELLARIA	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	460#	44	--	-	--	-	--	-	--	-
...HORMOGONALES										
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIA	--	-	230#	60	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
...EUGLENACEAE										
....TRACHELOMONAS	--	-	--	-	--	-	--	-	--	-

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 1979 TO SEPTEMBER 1980
PERIPHYTON

DATE	TIME	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 Polyethylene strip
NOV 19...	1630	34.5	32.7	49.6	.000	36.3	
AUG 26...	1200	6.85	4.72	18.9	2.54	113	"
SEP 25...	1200	172	159	90.4	.000	144	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (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. FALL DIAM. % FINER THAN .062 MM (70342)
OCT 02...	1230	1190	15.5	88	--	--	--	--	--	--
25...	1345	1010	12.5	60	41	45	53	61	72	--
NOV 19...	1630	542	6.0	38	--	--	--	--	--	--
DEC 18...	1315	2160	4.0	227	--	--	--	--	--	--
JAN 23...	1030	2140	3.0	597	--	--	--	--	--	--
FEB 19...	1030	2500	7.0	3240	--	--	--	--	--	--
MAR 19...	0945	3480	6.0	944	--	--	--	--	--	--
APR 07...	1200	2610	9.5	3560	28	42	--	59	--	86
21...	1400	5880	10.0	4630	--	--	--	--	--	--
MAY 07...	1200	6200	--	1440	--	--	--	--	--	--
22...	1000	5600	13.0	1220	--	--	--	--	--	--
JUN 03...	1515	5660	13.5	450	--	--	--	--	--	--
18...	1200	6580	13.5	410	--	--	--	--	--	--
JUL 03...	1115	3300	18.5	1520	--	--	--	--	--	--
28...	1000	1470	20.0	37	--	--	--	--	--	--
AUG 04...	1330	1380	22.0	65	--	--	--	--	--	--
26...	1200	2110	17.5	297	--	--	--	--	--	--
SEP 02...	1030	1340	10.0	46	--	--	--	--	--	--
25...	1200	1140	14.0	70	--	--	--	--	--	--

09367540 SAN JUAN RIVER NEAR FRUITLAND, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

[illegible]

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 mi² (163 km²).

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.--5 years, 0.710 ft³/s (0.020 m³/s), 514 acre-ft/yr (633,800 m³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,000 ft³/s (142 m³/s) May 20, 1978, gage height, 13.00 ft (3.962 m), from floodmarks, from rating curve extended above 4.0 ft³/s (0.11 m³/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.--Maximum discharge, 108 ft³/s (3.06 m³/s) at 2000 hours, Sept. 10, gage height, 2.55 ft (0.777 m), no other peak above base of 30 ft³/s (0.85 m³/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.04	.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	.01
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.18
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13
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	4.8
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.38
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	.01	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.03	.03	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.45	4.2	.00	.00	.00	.00	.00	.00	.00
21	3.6	.00	.00	.21	.84	.00	.00	.00	.00	.00	.00	.00
22	.06	.00	.00	.01	3.8	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.07	.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	.00
30	.00	.00	.00	1.4	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.47	---	.00	---	.00	---	.00	.00	---
TOTAL	3.66	.00	.00	2.58	8.98	.00	.00	.00	.00	.00	.00	5.50
MEAN	.12	.000	.000	.083	.31	.000	.000	.000	.000	.000	.000	.18
MAX	3.6	.00	.00	1.4	4.2	.00	.00	.00	.00	.00	.00	4.8
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	7.3	.00	.00	5.1	18	.00	.00	.00	.00	.00	.00	11

CAL YR 1979 TOTAL 587.58 MEAN 1.61 MAX 131 MIN .00 AC-FT 1170
WTR YR 1980 TOTAL 20.72 MEAN .057 MAX 4.8 MIN .00 AC-FT 41

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 mi² (191 km²).

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 poor. Base flow is mostly waste water from San Juan Power Plant.

AVERAGE DISCHARGE.--6 years, 1.91 ft³/s (0.054 m³/s), 1,380 acre-ft/yr (1.70 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,420 ft³/s (182 m³/s) May 20, 1978, gage height, 18.94 ft (5.773 m), from floodmark, from rating curve extended above 4.0 ft³/s (0.11 m³/s) on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 200 ft³/s (5.66 m³/s) at 2315 hours Sept. 10, gage height, 5.99 ft (1.826 m), no other peak above base of 30 ft³/s (0.85 m³/s); minimum daily, 0.08 ft³/s (0.002 m³/s) Apr. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	1.7	2.2	3.2	2.2	5.8	2.5	1.4	1.4	2.1	2.5	1.8
2	3.4	1.9	1.6	3.4	2.2	6.2	2.5	1.5	1.4	2.1	1.6	2.1
3	3.0	2.2	1.2	3.7	2.2	4.4	3.2	.70	1.5	2.0	2.0	2.0
4	1.5	2.2	.88	4.8	2.5	5.4	3.4	1.2	2.5	2.0	2.0	1.9
5	2.0	2.5	1.3	4.2	2.2	4.4	3.7	.70	3.5	1.9	2.0	2.1
6	3.2	2.4	.89	2.7	1.9	5.1	2.7	.64	2.7	1.9	2.0	3.3
7	3.2	3.2	.87	.50	2.5	6.2	3.4	.36	1.8	2.0	1.8	2.6
8	2.7	3.5	1.6	.47	.78	3.7	2.2	.48	2.0	2.4	1.9	2.6
9	2.5	3.2	1.6	1.1	1.7	3.2	1.1	.58	2.2	1.8	1.8	2.5
10	2.2	4.6	3.1	1.9	3.2	7.9	1.9	1.4	3.2	1.4	2.1	13
11	3.0	3.8	1.8	2.3	2.5	7.9	.88	.64	2.0	1.6	1.5	21
12	1.9	6.2	3.0	1.9	2.9	7.9	.18	1.1	1.6	2.0	2.1	3.8
13	1.5	5.5	3.5	.88	1.8	6.5	.08	2.0	1.5	1.9	2.3	2.8
14	1.2	3.3	2.2	.61	1.7	3.7	.18	1.4	4.2	2.0	1.9	1.6
15	1.0	4.7	1.8	.61	1.7	3.0	.18	.75	5.6	1.5	2.1	1.8
16	.70	3.0	1.6	.74	3.9	4.4	.42	.88	3.0	1.4	2.5	1.9
17	.75	2.0	4.0	.66	2.6	4.4	1.0	.31	2.0	2.0	2.4	2.3
18	.70	1.5	1.8	.69	5.6	5.1	1.9	.20	3.2	1.8	2.5	3.7
19	.64	1.6	.91	.88	7.2	6.2	3.0	.20	2.9	2.1	1.9	3.8
20	.58	2.5	2.2	1.2	6.8	6.5	3.9	.30	2.6	2.0	2.1	4.1
21	6.2	2.3	3.2	1.6	3.4	6.5	5.4	.50	2.6	1.8	2.2	3.2
22	2.2	1.8	5.9	1.6	7.2	7.6	5.1	.80	2.5	2.0	2.2	2.0
23	3.0	3.5	4.4	2.0	3.4	4.4	5.8	1.1	2.4	2.3	1.9	1.7
24	2.0	2.6	3.4	1.9	3.7	4.4	3.7	1.5	2.2	2.8	2.3	1.8
25	1.9	4.0	4.2	.97	3.9	6.2	3.9	1.8	2.1	2.4	2.2	2.4
26	1.8	3.5	4.9	2.3	4.2	5.4	3.2	1.9	2.1	2.8	2.2	2.7
27	1.8	2.9	5.6	3.0	4.8	4.4	2.0	1.9	2.1	3.0	2.1	3.7
28	1.9	3.2	5.4	5.1	5.4	3.9	2.7	.75	2.1	3.1	2.0	2.9
29	2.0	5.8	4.8	6.2	5.4	3.2	2.5	2.5	2.1	2.7	2.9	2.2
30	2.1	1.9	4.4	4.4	---	3.0	1.5	2.2	2.1	2.7	2.2	2.1
31	1.7	---	3.7	2.5	---	3.2	---	1.9	---	2.7	2.3	---
TOTAL	66.47	93.0	87.95	68.01	99.48	160.1	74.12	33.59	73.1	66.2	65.5	105.4
MEAN	2.14	3.10	2.84	2.19	3.43	5.16	2.47	1.08	2.44	2.14	2.11	3.51
MAX	6.2	6.2	5.9	6.2	7.2	7.9	5.8	2.5	5.6	3.1	2.9	21
MIN	.58	1.5	.87	.47	.78	3.0	.08	.20	1.4	1.4	1.5	1.6
AC-FT	132	184	174	135	197	318	147	67	145	131	130	209
CAL YR 1979	TOTAL	1390.18	MEAN	3.81	MAX	142	MIN	.31	AC-FT	2760		
WTR YR 1980	TOTAL	992.92	MEAN	2.71	MAX	21	MIN	.08	AC-FT	1970		

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; 26 indicates by automatic pump, 29 indicates dip or grab sample, and 40 indicates single-stage sample.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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 AS CaCO3) (00902)
OCT											
22...	1330	1.6	3500	7.0	--	13.0	--	--	--	--	--
NOV											
07...	1250	3.8	2850	7.7	11.5	--	--	--	--	--	--
27...	1230	1.0	5675	6.9	3.0	7.5	--	--	--	--	--
29...	0800	5.0	6000	9.0	-8.0	--	280	10.2	410	800	720
DEC											
18...	1311	1.8	6450	3.8	--	6.0	--	--	--	--	--
JAN											
09...	1500	2.1	8150	4.5	--	9.0	--	--	--	--	--
FEB											
06...	1200	.96	8000	8.1	8.0	7.5	110	10.2	64	2200	2000
06...	1315	.96	9000	--	--	9.0	--	--	--	--	--
MAR											
05...	1240	4.0	9600	5.6	12.0	15.0	--	--	--	--	--
APR											
02...	1300	3.1	5450	7.2	--	14.0	--	--	--	--	--
JUN											
04...	0800	3.4	14000	6.4	22.0	16.0	140	.1	400	580	510
SEP											
02...	1415	2.2	11900	4.1	32.5	32.0	48	.1	370	760	770

DATE	ACIDITY TOTAL HEATED (MG/L AS H) (71825)	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 (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CaCO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT										
22...	--	--	--	--	--	--	--	--	--	--
NOV										
07...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
29...	--	210	68	1400	21	14	--	--	84	3700
DEC										
18...	--	--	--	--	--	--	--	--	--	--
JAN										
09...	--	--	--	--	--	--	4	0	3	--
FEB										
06...	--	450	250	1400	13	11	--	--	190	4300
06...	--	--	--	--	--	--	--	--	--	--
MAR										
05...	--	--	--	--	--	--	--	12	20	--
APR										
02...	--	--	--	--	--	--	304	0	249	--
JUN										
04...	--	71	97	3700	67	27	--	--	66	7600
SEP										
02...	13	160	88	3000	47	9.4	--	--	-8	6400

SAN JUAN RIVER BASIN

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)
OCT 22...	--	--	--	--	--	--	--	--	--	--
NOV 07...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
29...	150	12	8.3	6440	5620	.78	.50	1.100	1.000	12
DEC 18...	--	--	--	--	--	--	--	--	--	--
JAN 09...	--	--	--	5890	--	--	--	--	--	--
FEB 06...	390	3.4	15	7310	6980	8.6	8.1	.370	.380	2.0
06...	--	--	--	--	--	7.1	--	.700	--	23
MAR 05...	--	--	--	--	--	--	--	--	--	--
APR 02...	--	--	--	--	--	--	--	--	--	--
JUN 04...	330	28	600	13300	12500	.00	.00	.560	.470	10
SEP 02...	320	34	38	12000	10100	.70	.00	.480	.490	9.5
DATE	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHOPH DISSOL. (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- PENDE D (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
OCT 22...	--	--	--	620	30	530	--	--	--	26
NOV 07...	--	--	--	410	20	230	--	--	--	--
27...	--	--	--	8900	580	490	--	--	--	--
29...	14	1.400	.060	460	140	200	--	10	.8	--
DEC 18...	--	--	--	5500	490	800	--	--	--	--
JAN 09...	--	--	--	--	110	740	--	--	--	--
FEB 06...	11	.250	.010	3400	50	960	--	16	1.9	--
06...	31	1.400	--	--	--	--	320	--	--	--
MAR 05...	--	--	--	--	200	1000	--	--	--	--
APR 02...	--	--	--	--	30	130	--	--	--	--
JUN 04...	11	.620	.190	6300	520	460	--	13	.3	--
SEP 02...	11	.320	.170	8100	1700	530	--	13	1.4	--

SAN JUAN RIVER BASIN

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ARSENIC	ARSENIC	BARIUM,	BARIUM,	BORON,	BORON,	CADMIUM	CADMIUM	CHRO-	
		TOTAL (UG/L AS AS) (01002)	DIS- SOLVED (UG/L AS AS) (01000)	TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	DIS- SOLVED (UG/L AS BA) (01005)	TOTAL RECOV- ERABLE (UG/L AS B) (01022)	DIS- SOLVED (UG/L AS B) (01020)	TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	DIS- SOLVED (UG/L AS CD) (01025)	MIMUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	
OCT											
22...	1330	3	1	1000	200	640	620	--	--	--	
NOV											
07...	1250	19	18	400	300	410	410	--	--	--	
27...	1230	25	3	800	200	8900	8900	--	--	--	
29...	0800	20	5	1200	300	--	460	0	1	60	
DEC											
18...	1311	5	1	400	200	5500	5500	--	--	--	
JAN											
09...	1500	--	--	--	--	--	--	--	--	--	
FEB											
06...	1200	5	1	300	200	--	3400	1	0	20	
MAR											
05...	1240	--	--	--	--	--	--	--	--	--	
APR											
02...	1300	--	--	--	--	--	--	--	--	--	
JUN											
04...	0800	17	8	700	300	--	6300	0	1	50	
SEP											
02...	1415	7	6	300	200	--	8100	1	1	30	
DATE		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)	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)
OCT											
22...	--	--	--	--	--	--	45000	30	300	0	1600
NOV											
07...	--	--	--	--	--	--	7000	20	0	0	300
27...	--	--	--	--	--	--	19000	580	400	18	750
29...	10	20	2	70	14	51000	140	62	2	2	960
DEC											
18...	--	--	--	--	--	--	6800	490	100	21	880
JAN											
09...	--	--	--	--	--	--	4700	110	--	--	810
FEB											
06...	10	7	7	27	9	5000	50	10	1	1	1300
MAR											
05...	--	--	--	--	--	--	15000	200	--	--	1100
APR											
02...	--	--	--	--	--	--	2800	30	--	--	310
JUN											
04...	0	0	6	140	58	29000	520	33	2	2	730
SEP											
02...	20	9	5	93	81	11000	1700	16	3	3	610

SAN JUAN RIVER BASIN

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
OCT 22...	530	--	--	--	--	--	--	--	--	26
NOV 07...	230	--	--	21	18	--	--	--	--	--
27...	490	--	--	430	330	--	--	--	--	--
29...	200	.5	.4	100	120	0	0	400	40	--
DEC 18...	800	--	--	180	120	--	--	--	--	--
JAN 09...	740	--	--	--	75	--	--	--	--	--
FEB 06...	960	.6	.3	160	160	0	0	100	40	29
MAR 05...	1000	--	--	--	340	--	--	--	--	--
APR 02...	130	--	--	--	30	--	--	--	--	--
JUN 04...	460	1.1	.6	710	720	0	0	240	100	--
SEP 02...	530	1.5	.4	660	660	0	0	320	220	--

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITROGEN, TOT. IN BOT. MA- TERIAL (MG/KG AS N) (00603)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT. TERIAL (UG/G AS AS) (01003)	CADMIUM RECOVER. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOVER. FM BOT- TOM MA- TERIAL (UG/G AS G) (01029)	COBALT, RECOVER. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)	COPPER, RECOVER. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	IRON, RECOVER. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)
NOV 29...	0800	3.2	1040	320	5	0	2	5	600	100000
FEB 06...	1200	7.8	442	310	6	0	2	5	6	33000
JUN 04...	0800	2.5	120	300	4	0	3	0	8	4600
SEP 02...	1415	.0	71	340	8	1	8	0	10	11000

DATE	TIME	LEAD, RECOVER. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MANGANESE, RECOVER. FM BOT- TOM MA- TERIAL (UG/G AS HG) (01053)	MERCURY RECOVER. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	SELENIUM, TOTAL IN BOT. TERIAL (UG/G AS SE) (01148)	ZINC, RECOVER. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	CARBON, INORG + ORGANIC TOT. IN BOT. MA- TERIAL (G/KG AS C) (00693)	CARBON, ORGANIC TOT. IN BOT. MA- TERIAL (G/KG AS C) (00687)	CARBON, INORGANIC TOT. IN BOT. MA- TERIAL (G/KG AS C) (00686)	SAMPLE SOURCE (72005)
NOV 29...	1000	200	.02	1	28	4.9	3.1	1.8	--	--
FEB 06...	10	120	.02	0	19	10	8.3	1.7	29	--
JUN 04...	10	60	.09	1	20	3.4	2.3	1.1	--	--
SEP 02...	10	130	.04	1	38	6.1	5.6	.5	--	--

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS-SOLVED, EXTRAC- TION (UG/L) (80020)
NOV 29...	0800	<130	160	<37	62	<33	63	.03	9.3
FEB 06...	1200	<110	15	<47	11	<48	11	.09	30
JUN 04...	0800	<330	22	<120	24	<110	23	.19	5.2
SEP 02...	1415	<170	11	<99	6.6	<96	6.3	.05	7.2

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

WATER-QUALITY RECORDS

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 29...	0800	400	3300
FEB 06...	1200	33	200
JUN 04...	0800	3100	2300
SEP 02...	1415	K33	310

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 29,79	FEB 6,80	JUN 4,80	SEP 2,80
TIME	0800	1200	0800	1415
TOTAL CELLS/ML	0	150	0	800
DIVERSITY: DIVISION	0.0	0.0	0.0	1.3
..CLASS	0.0	0.0	0.0	1.3
..ORDER	0.0	0.4	0.0	1.4
...FAMILY	0.0	2.2	0.0	1.6
....GENUS	0.0	2.2	0.0	1.7
	CELLS PER-	CELLS PER-	CELLS PER-	CELLS PER-
	/ML CENT	/ML CENT	/ML CENT	/ML CENT
ORGANISM				
CHLOROPHYTA (GREEN ALGAE)				
.CHLOROPHYCEAE				
..CHLOROCOCCALES				
...SCENEDESMACEAE				
....SCENEDESMUS	-- -	-- -	-- -	55 7
CHRYSOPHYTA				
.BACILLARIOPHYCEAE				
..CENTRALES				
...COSCINODISCACEAE				
....CYCLOTELLA	-- -	10 7	-- -	14 2
..PENNALES				
...CYMBELLACEAE				
....CYMBELLA	-- -	5 3	-- -	-- -
...DIATOMACEAE				
....OPEPHORA	-- -	20 14	-- -	-- -
...FRAGILARIACEAE				
....SYNEDRA	-- -	10 7	-- -	14 2
...NAVICULACEAE				
....NAVICULA	-- -	51# 34	-- -	14 2
...NITZSCHACEAE				
....NITZSCHIA	-- -	51# 34	-- -	96 12
...SURIPELLACEAE				
....SURIPELLA	-- -	-- -	-- -	14 2
CYANOPHYTA (BLUE-GREEN ALGAE)				
.CYANOPHYCEAE				
..HORMOGONALES				
...OSCILLATORIACEAE				
....OSCILLATORIA	-- -	-- -	-- -	550# 69
EUGLENOPHYTA (EUGLENOIDS)				
.EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
....PHACUS	-- -	-- -	-- -	28 3
....TRACHELOMONAS	-- -	-- -	-- -	14 2

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

SAN JUAN RIVER BASIN

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
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)	SAMPLING METHOD
NOV 29...	0800	62	.630	.550	.000	.000	Polyethylene strip
MAR 05...	1000	27	.550	.470	.000	.000	"
APR 02...	1310	29	.000	.000	.000	.000	"
SEP 02...	1415	89	.472	.315	.000	.000	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STPEAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
OCT 22...	1330	1.6	13.0	2840	85	26
22...	1335	1.6	13.0	2090	99	26
NOV 07...	1250	3.8	--	675	48	--
07...	1300	3.8	--	158	70	26
27...	1230	1.0	7.5	1620	94	--
29...	0800	5.0	--	4410	65	--
DEC 18...	1311	1.8	6.0	1030	62	--
JAN 09...	1500	2.1	9.0	276	93	--
18...	1245	.74	11.0	213	61	--
FEB 06...	1200	.96	7.5	518	90	--
MAR 05...	1240	4.0	15.0	1350	70	--
APR 02...	1300	3.1	14.0	246	60	--
JUN 04...	0800	3.4	16.0	1430	48	--
SEP 02...	1415	2.2	32.0	322	36	--

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 Starlake Trading Post, and 7.6 mi (12.2 km) southeast of Pueblo Pintada.
DRAINAGE AREA.--59.0 mi² (153 km²).

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, 97 ft³/s (2.75 m³/s), Oct. 3, 1977, gage height, 4.60 ft (1.402 m) on basis of step-backwater analysis; no flow many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20 ft³/s (0.57 m³/s) at 2030 hours Oct. 21, gage height, 3.57 ft (1.088 m); maximum gage height, 3.60 ft (1.097 m) July 22; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	1.4	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.35	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.02	.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	.17	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.42	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	7.6	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.4
9	.00	.75	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.9
10	.00	.59	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.6
11	.00	.70	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.7
12	.00	.31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.09	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.03	.00	.00	.63	.00	.00	.00	.00	.58	1.3	.00
15	.00	.00	.00	.04	5.9	.00	.00	.00	.00	.00	.03	.00
16	.00	.00	.00	.03	2.9	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.61	.71	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.21	.03	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	1.1	.02	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	3.0	4.7	.00	.00	.00	.00	.00	.00	.00
21	5.8	.00	.00	2.3	3.2	.00	.00	.00	.00	.00	.00	.00
22	1.3	.00	.00	1.5	3.7	.00	.00	.00	.00	8.0	.00	.00
23	.59	.00	.00	.30	2.3	.00	.00	.00	.00	2.1	.00	.00
24	.23	.00	.00	.00	.62	.00	.00	.00	.00	.32	.00	.00
25	.00	.00	.00	.00	.15	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	1.4	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	2.0	---	.00	---	.00	---	.01	.00	---
TOTAL	7.92	10.07	.00	12.51	26.69	.00	.00	.59	.00	11.01	1.33	8.60
MEAN	.26	.34	.000	.40	.92	.000	.000	.019	.000	.36	.043	.29
MAX	5.8	7.6	.00	3.0	5.9	.00	.00	.42	.00	8.0	1.3	2.9
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	16	20	.00	25	53	.00	.00	1.2	.00	22	2.6	17

CAL YR 1979 TOTAL 653.19 MEAN 1.79 MAX 61 MIN .00 AC-FT 1300
WTR YR 1980 TOTAL 78.72 MEAN .22 MAX 8.0 MIN .00 AC-FT 156

REMARKS.--Under the heading of SAMPLE SOURCE numerical values are used to indicate sampling method; 40 indicates single-stage sample.

[illegible][illegible]

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
OCT											
21...	--	--	--	--	--	--	--	52	--	--	40
NOV											
08...	--	--	--	--	--	--	--	94	--	--	40
08...	--	--	--	--	--	--	--	75	--	--	40
08...	--	--	--	--	--	--	--	44	--	--	40
JAN											
19...	--	--	--	--	--	--	--	34	--	--	40
20...	--	--	--	--	--	--	--	47	--	--	40
FEB											
21...	1.900	2.5	5.3	1.200	40	330	--	--	9.4	24	--
MAY											
05...	--	--	--	--	--	--	--	260	--	--	40
06...	.550	7.4	9.4	1.700	70	270	4	--	17	39	--
JUL											
22...	--	--	--	--	--	--	--	150	--	--	40
22...	--	--	--	--	--	--	--	150	--	--	40
22...	--	--	--	--	--	--	--	79	--	--	40
AUG											
14...	--	--	--	--	--	--	--	140	--	--	40
SEP											
08...	--	--	--	--	--	--	--	170	--	--	40
08...	--	--	--	--	--	--	--	210	--	--	40
08...	--	--	--	--	--	--	--	200	--	--	40

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	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)
OCT										
21...	1430	--	16	--	--	--	--	--	--	--
NOV										
08...	0230	--	25	--	--	--	--	--	--	--
08...	0245	--	18	--	--	--	--	--	--	--
08...	1030	--	15	--	--	--	--	--	--	--
JAN										
19...	1845	--	10	--	--	--	--	--	--	--
20...	0100	--	14	--	--	--	--	--	--	--
MAY										
05...	2315	--	38	--	--	--	--	--	--	--
06...	1245	520	26	2	1600	20	10	<1	70	1
JUL										
22...	0115	--	43	--	--	--	--	--	--	--
22...	0125	--	54	--	--	--	--	--	--	--
22...	0440	--	18	--	--	--	--	--	--	--
AUG										
14...	1110	--	33	--	--	--	--	--	--	--
SEP										
08...	1300	--	40	--	--	--	--	--	--	--
08...	1845	--	56	--	--	--	--	--	--	--
08...	1915	--	41	--	--	--	--	--	--	--

SAN JUAN RIVER BASIN
09367660 CHACO WASH NEAR STAR LAKE TRADING POST, NM -- Continued
WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)
OCT									
21...	--	--	--	--	--	--	--	--	--
NOV									
08...	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--
JAN									
19...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
MAY									
05...	--	--	--	--	--	--	--	--	--
06...	<1	60	0	89	<3	320	26	270	180
JUL									
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
AUG									
14...	--	--	--	--	--	--	--	--	--
SEP									
08...	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--

DATE	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)
OCT									
21...	--	--	--	--	--	1.4	--	--	--
NOV									
08...	--	--	--	--	--	.7	--	--	--
08...	--	--	--	--	--	.4	--	--	--
08...	--	--	--	--	--	.6	--	--	--
JAN									
19...	--	--	--	--	--	1.5	--	--	--
20...	--	--	--	--	--	.8	--	--	--
MAY									
05...	--	--	--	--	--	.9	--	--	--
06...	38	90	6	2000	4	.4	.0	0	0
JUL									
22...	--	--	--	--	--	.9	--	--	--
22...	--	--	--	--	--	.9	--	--	--
22...	--	--	--	--	--	.6	--	--	--
AUG									
14...	--	--	--	--	--	1.0	--	--	--
SEP									
08...	--	--	--	--	--	.9	--	--	--
08...	--	--	--	--	--	.9	--	--	--
08...	--	--	--	--	--	.9	--	--	--

DATE	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL SOLVED (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	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)
OCT									
21...	--	--	1	--	--	--	--	--	--
NOV									
08...	--	--	2	--	--	--	--	--	--
08...	--	--	2	--	--	--	--	--	--
08...	--	--	1	--	--	--	--	--	--
JAN									
19...	--	--	2	--	--	--	--	--	40
20...	--	--	3	--	--	--	--	--	40
MAY									
05...	--	--	8	--	--	--	--	--	--
06...	90	7	2	4	100	<6.0	760	31	--
JUL									
22...	--	--	6	--	--	--	--	--	40
22...	--	--	7	--	--	--	--	--	40
22...	--	--	3	--	--	--	--	--	40
AUG									
14...	--	--	1	--	--	--	--	--	40
SEP									
08...	--	--	6	--	--	--	--	--	--
08...	--	--	4	--	--	--	--	--	--
08...	--	--	3	--	--	--	--	--	--

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	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)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)
MAY 06...	1245	3	100	0	0	1	0	6
DATE	TIME	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	MOLYB- DENUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI) (01063)	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI) (01068)	SELE- NIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01148)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)
MAY 06...	0	200	.02	1	10	0	10	

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90) (80060)
MAY 06...	1245	8.2	310	4.8	190	4.6	180

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
FEB 21...	1545	0	K6600
MAY 06...	1245	5100	K870

SAN JUAN RIVER BASIN
09367660 CHACO WASH NEAR STAR LAKE TRADING POST, NM -- Continued
WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (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 .062 MM (70342)
OCT							
21...	1430	4.6	--	11300	--	--	--
NOV							
08...	0230	1.2	--	19700	--	--	--
08...	0245	4.5	--	14800	--	--	--
08...	1030	14	--	13200	--	--	--
JAN							
19...	1845	4.7	--	2750	--	--	--
20...	0100	8.1	--	7810	--	--	--
FEB							
21...	1545	4.4	1.0	6040	--	--	--
MAY							
05...	2315	.83	--	22300	--	--	--
06...	1245	.18	22.0	10100	96	99	100
JUL							
22...	0115	.83	--	19100	--	--	--
22...	0125	4.5	--	22900	--	--	--
22...	0440	13	--	11200	--	--	--
AUG							
14...	1110	.95	--	23200	--	--	--
SEP							
08...	1300	.83	--	18500	--	--	--
08...	1845	4.5	--	26100	--	--	--
08...	1915	13	--	18500	--	--	--

DATE	BED MAT. FALL DIAM. % FINER THAN (80158)	BED MAT. FALL DIAM. % FINER THAN (80159)	BED MAT. FALL DIAM. % FINER THAN (80160)	BED MAT. FALL DIAM. % FINER THAN (80161)	BED MAT. FALL DIAM. % FINER THAN (80162)	SAMPLE SOURCE (72005)
OCT						
21...	--	--	--	--	--	40
NOV						
08...	--	--	--	--	--	40
08...	--	--	--	--	--	40
08...	--	--	--	--	--	40
JAN						
19...	--	--	--	--	--	40
20...	--	--	--	--	--	40
FEB						
21...	--	--	--	--	--	--
MAY						
05...	--	--	--	--	--	40
06...	18	26	83	99	100	--
JUL						
22...	--	--	--	--	--	40
22...	--	--	--	--	--	40
22...	--	--	--	--	--	40
AUG						
14...	--	--	--	--	--	40
SEP						
08...	--	--	--	--	--	40
08...	--	--	--	--	--	40
08...	--	--	--	--	--	40

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 mi² (1,497 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,140 ft (1,871 m), from topographic map.

REMARKS.--Water-discharge records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,260 ft³/s (35.7 m³/s) Jan. 18, 1979, gage height, 6.62 ft (2.018 m), from rating curve extended above 350 ft³/s (9.91 m³/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.--Maximum discharge, 86 ft³/s (2.44 m³/s) at 0200 hours Sept. 9, gage height, 2.15 ft (0.655 m), no peak above base of 100 ft³/s (2.8 m³/s); no flow most of time.

REVISIONS.--Revised daily discharge, in cubic feet per second, for the high water period in November 1978 are given below. These figures supersede those published in the report for 1979.

Month	Total	Mean	Max	Min	Ac-ft
November 1978	92.68	3.09	83	0	184
CAL YR 1978	828.14	2.27	160	0	1,640
WTR YR 1979	6,078.52	16.7	606	0	12,060

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
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	1.48	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	1.4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	7.4	.00	.00	.00	.00	.00	.00	.00	.00	.00	9.8
10	.00	7.9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	5.4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	2.2	.00	1.4	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	1.4	.00	8.9	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.60	.00	20	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.24	.00	18	24	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	1.2	33	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.12	11	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	9.4	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	8.9	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	7.6	19	.00	.00	.00	.00	.00	.00	.00
21	2.5	.00	.00	.00	.76	.00	.00	.00	.00	.00	.00	.00
22	5.9	.00	.00	.00	8.5	.00	.00	.00	.00	.00	.00	.00
23	2.0	.00	.00	.00	10	.00	.00	.00	.00	.00	.00	.00
24	2.0	.00	.00	.00	3.8	.00	.00	.00	.00	.00	.00	.00
25	.12	.00	.00	.00	6.4	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	7.4	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	1.9	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.48	.00	.00	.00	.00	.00	.00	.00
29	.00	.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	12.52	27.02	.00	57.22	144.54	.00	.00	.00	.00	.00	.00	9.80
MEAN	.40	.90	.000	1.85	4.98	.000	.000	.000	.000	.000	.000	.33
MAX	5.9	7.9	.00	20	33	.00	.00	.00	.00	.00	.00	9.8
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	25	54	.00	113	287	.00	.00	.00	.00	.00	.00	19
CAL YR 1979	TOTAL	6000.44	MEAN	16.4	MAX	606	MIN	.00	AC-FT	11900		
WTR YR 1980	TOTAL	251.10	MEAN	.69	MAX	33	MIN	.00	AC-FT	498		

SAN JUAN RIVER BASIN

09367680 CHACO WASH AT CHACO CANYON NATIONAL MONUMENT, NM -- Continued

WATER-QUALITY RECORDS

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 1979 TO SEPTEMBER 1980

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	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)
FEB 15-16 25...	-- 1625	555 578	-- 7.5	28 33	0 0	10 12	.8 .8	99 100	8.1 7.5	2.6 2.7
DATE		ALKA- LITY (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)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
FEB 15-16 25...	160 150	83 110	3.9 6.1	.7 .6	14 15	334 --	316 339	1.1 --	1.4 .14	
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, ORTHOPH DISSOL. (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)
FEB 15-16 25...	.520 --	15 --	17 --	.020 --	-- 70	880 1100	11 0	98 56	3.0 --	

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	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)
FEB 15-16 25...	-- 1625	330 ---	37 ---	3 ---	200 ---	60 ---	20 ---	<3 ---	-- 70	2 ---

DATE	TIME	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)
FEB 15-16 25...	-- 1625	<3 ---	140 ---	0 ---	160 ---	<8 ---	430 ---	<25 ---	-- 160000	880 1100

DATE	TIME	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)
FEB 15-16 25...	-- 1625	310 ---	27 ---	240 ---	15 ---	9100 2200	11 0	1.4 ---	.0 ---	0 ---

DATE	TIME	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	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)
FEB 15-16 25...	-- 1625	<25 ---	160 ---	4 ---	10 ---	4 ---	170 ---	<8.0 ---	950 ---	<8 ---

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS (80030)	GROSS ALPHA, SUSP. (UG/L AS (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS (03515)	GROSS BETA, SUSP. (PCI/L AS (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. (PCI/L AS SR/ YT-90) (80060)	RADIUM 226, DIS- SOLVED (PCI/L METHOD (09511)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L) (80020)
FEB 15-16		6.6	1400	3.7	820	3.5	800	.08	3.7

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
FEB					
15...	0930	22	2.0	38200	92
15...	1300	29	3.0	43100	94
15...	1430	33	4.0	43200	93
15...	1700	50	4.5	45200	91
15...	1800	42	4.5	41300	99
15...	2000	33	4.0	46400	91
16...	0845	28	3.0	42300	90
16...	0945	26	3.0	38200	92
16...	1030	28	3.0	36500	94
16...	1415	25	5.0	36100	92
16...	1500	25	5.0	35500	92
25...	1625	5.4	--	13800	94

SAN JUAN RIVER BASIN

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 Monument Visitors Center, and 3.2 mi (5.1 km) upstream from mouth.

DRAINAGE AREA.--36.2 mi² (93.8 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

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 ft³/s (7.19 m³/s) Jan. 18, 1979, gage height, 3.30 ft (1.006 m), from rating curve extended above 15 ft³/s (0.42 m³/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 1979 TO SEPTEMBER 1980
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	.00
30	.00	.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 1979	TOTAL 347.07	MEAN .95	MAX 120	MIN .00	AC-FT 688							
WTR YR 1980	TOTAL 0.00	MEAN .000	MAX .00	MIN .00	AC-FT .00							

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 mi² (21.2 km²).

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 ft³/s (33.1 m³/s) July 20, 1977, gage height, 4.46 ft (1.359 m), from rating curve extended above 6.0 ft³/s (0.17 m³/s) on basis of step-back water analysis; no flow most of time.EXTREMES FOR CURRENT YEAR.--Maximum discharge, 212 ft³/s (6.00 m³/s) at 1730 hours Aug. 7, gage height, 1.71 ft (0.521 m), no peak above base of 300 ft³/s (8.5 m³/s); no flow most of time.DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	1.4	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	1.2	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.04	.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	.06	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.57	.00	.00	.00	.00
7	.00	2.1	.00	.00	.00	.00	.00	.10	.00	.00	8.5	.00
8	.00	30	.00	2.0	.30	.00	.00	.00	.00	.00	2.1	.00
9	.00	.00	.00	2.6	.30	.00	.00	.00	.00	.00	.15	.00
10	.00	.00	.00	.75	.50	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	8.8	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	1.2	.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	3.8	.60	.00	.00	.00	.00	.00	.20	.00
15	.00	.00	.00	4.7	7.9	.00	.00	.00	.00	.00	.47	.00
16	.00	.00	.00	.00	.79	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	2.3	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	1.9	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	2.6	.00	.00	15	.00	.00	.00	.00	.00	.00	.00
20	.00	.02	.00	4.8	11	.00	.00	.00	.00	.00	.00	.00
21	37	.00	.00	10	5.6	.00	.00	.00	.00	.00	.00	.00
22	.01	.00	.04	4.3	21	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.01	.91	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	9.5	.00
25	.00	.16	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00
26	.00	6.8	.05	2.4	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.15	.45	.00	.34	.00	.00	.00	.00	.00	.00
28	.00	.00	.50	.00	.00	2.8	.00	.00	.00	.00	.00	.00
29	.00	.00	.30	31	.00	1.1	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	10	---	.15	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.18	---	.00	---	.00	.00	---
TOTAL	37.01	41.68	1.05	89.61	65.29	4.57	2.60	.77	.00	.00	21.02	.00
MEAN	1.19	1.39	.034	2.89	2.25	.15	.087	.025	.000	.000	.68	.000
MAX	37	30	.50	31	21	2.8	1.4	.57	.00	.00	9.5	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	73	83	2.1	178	130	9.1	5.2	1.5	.00	.00	42	.00
CAL YR 1979	TOTAL 621.55		MEAN 1.70		MAX 70		MIN .00		AC-FT 1230			
WTR YR 1980	TOTAL 263.60		MEAN .72		MAX 37		MIN .00		AC-FT 523			

PERIOD OF RECORD:--water years 1977 to current year.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS	SPE- CIFIC CON- DUCT- ANCE	PH	TEMPER- ATURE, WATER	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
		(CFS) (00061)	(MICRO- MHOS) (00095)	FIELD (UNITS) (00400)	(DEG C) (00010)	(00900)	(00902)	(00915)	(00925)	(00930)	(00931)
OCT											
21...	1100	El40	420	7.6	--	--	--	--	--	--	--
21...	1101	El40	420	7.6	--	--	--	--	--	--	--
22...	1600	33	1400	7.4	13.0	--	--	--	--	--	--
APR											
01...	1145	1.3	695	7.8	5.0	17	0	5.7	.6	130	14
AUG											
07...	2000	El40	2200	8.2	--	--	--	--	--	--	--
07...	2001	El40	1000	7.0	--	--	--	--	--	--	--
07...	2002	El40	1400	7.6	--	--	--	--	--	--	--
24...	1340	El40	2600	8.3	--	--	--	--	--	--	--
24...	1400	El40	650	7.1	--	--	--	--	--	--	--
24...	1401	El40	800	7.7	--	--	--	--	--	--	--

[illegible][illegible]

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

[illegible][illegible]

	LEAD, TOTAL RECOV- (UG/L AS PB) (01051)	LEAD, DIS- (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV- (UG/L AS LI) (01132)	LITHIUM DIS- (UG/L AS LI) (01130)	MANGA- NESE, TOTAL RECOV- (UG/L AS MN) (01055)	MANGA- NESE, DIS- (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- (UG/L AS HG) (71900)	MERCURY DIS- (UG/L AS HG) (71890)	MOLYB- DENUM, TOTAL RECOV- (UG/L AS MO) (01062)	MOLYB- DENUM, DIS- (UG/L AS MO) (01060)
OCT										
21...	800	--	--	--	20000	--	--	--	--	--
21...	700	--	--	--	24000	--	--	--	--	--
22...	600	0	--	--	9800	0	--	--	--	--
APR										
01...	180	28	110	10	1800	6	.7	.0	1	<10
AUG										
07...	--	--	--	--	25000	--	--	--	--	--
07...	--	--	--	--	23000	--	--	--	--	--
19...	--	--	--	--	30000	--	--	--	--	--
24...	--	--	--	--	12000	--	--	--	--	--
24...	--	--	--	--	10000	--	--	--	--	--

[illegible]

SAN JUAN RIVER BASIN
09367685 AH-SHI-SLE-PAH WASH NEAR KIMBETO, NM -- Continued
WATER-QUALITY RECORDS

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90) (80060)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L) (80020)
APR 01...	1145	<19	290	<20	230	<19	220	.06	1.8

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (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)
OCT							
21...	1100	E140	--	46400	--	--	--
21...	1101	E140	--	50200	--	--	--
21...	1130	119	--	44500	36	39	44
21...	1135	119	--	60300	--	--	--
21...	1139	130	--	112000	--	--	--
21...	1146	130	--	40800	--	--	--
21...	1158	174	--	62000	--	--	--
21...	1205	188	--	70500	--	--	--
21...	1212	192	--	62500	--	--	--
21...	1224	198	--	53500	--	--	--
21...	1235	195	--	62600	--	--	--
21...	1250	185	--	60400	--	--	--
21...	1301	163	--	71700	--	--	--
APR 01...	1145	1.3	5.0	11900	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN (70342)	SED. SUSP. FALL DIAM. % FINER THAN (70343)	SED. SUSP. FALL DIAM. % FINER THAN (70344)	SED. SUSP. FALL DIAM. % FINER THAN (70345)	SED. SUSP. FALL DIAM. % FINER THAN (70331)	SAMPLE SOURCE (72005)
OCT						
21...	--	--	--	--	42	40
21...	--	--	--	--	38	40
21...	58	73	96	100	--	26
21...	--	--	--	--	38	26
21...	--	--	--	--	29	26
21...	--	--	--	--	38	26
21...	--	--	--	--	39	26
21...	--	--	--	--	35	26
21...	--	--	--	--	38	26
21...	--	--	--	--	43	26
21...	--	--	--	--	30	26
21...	--	--	--	--	45	26
21...	--	--	--	--	40	26
APR 01...	--	--	--	--	100	--

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 mi² (477 km²).

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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,010 ft³/s (56.9 m³/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 ft³/s (9.9 m³/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)
Oct. 21	1600	360	10.2	2.75	0.838	Aug. 11	2145	*730	20.7	3.10	0.945

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
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	1.2	.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	4.5
7	.00	.71	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	60	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	19	.00	2.6	.60	.00	.00	.00	.00	.00	.00	.00
10	.00	3.2	.00	94	6.0	.00	.00	.00	.00	.00	.00	.00
11	.00	1.0	.00	36	3.0	.00	.00	.00	.00	.00	47	.00
12	.00	.00	.00	14	10	.00	.00	.00	.00	.00	8.0	.00
13	.00	.00	.00	12	33	.15	.00	.00	.00	.00	.03	.00
14	.00	.00	.00	6.9	76	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	40	60	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	2.0	29	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	24	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	15	26	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	9.8	24	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	22	60	.00	.00	.00	.00	.00	.00	.00
21	96	.00	.00	23	13	.00	.00	.00	.00	.00	.00	.00
22	5.2	.00	.00	36	29	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	9.1	16	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	2.5	5.0	.00	.00	4.6	.00	.00	.00	.00
25	.00	.00	.00	4.0	2.2	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	38	1.0	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	48	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	30	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	72	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	25	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	101.20	83.91	.00	541.90	417.80	.15	1.20	4.60	.00	.00	55.03	4.50
MEAN	3.26	2.80	.000	17.5	14.4	.005	.040	.15	.000	.000	1.78	.15
MAX	96	60	.00	94	76	.15	1.2	4.6	.00	.00	47	4.5
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	201	166	.00	1070	829	.3	2.4	9.1	.00	.00	109	8.9

CAL YR 1979	TOTAL	4126.28	MEAN	11.3	MAX	449	MIN	.00	AC-FT	8180
WTR YR 1980	TOTAL	1210.29	MEAN	3.31	MAX	96	MIN	.00	AC-FT	2400

SAN JUAN RIVER BASIN
09367710 DE-NA-ZIN WASH NEAR 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 method of sampling;
26 indicates by automatic pump and 40 indicates single-stage sample.

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ARSENIC	ARSENIC	BARIUM,	BARIUM,	BORON,	BORON,
		TOTAL	DIS-	TOTAL	DIS-	TOTAL	DIS-
		(UG/L	SOLVED	RECOV-	SOLVED	RECOV-	SOLVED
		AS AS)	(UG/L	ERABLE	(UG/L	ERABLE	(UG/L
		(01002)	AS AS)	AS BA)	AS BA)	AS B)	AS B)
		(01002)	(01000)	(01007)	(01005)	(01022)	(01020)
NOV							
08...	1030	38	20	4400	100	220	80
DATE	TIME	IRON,	IRON,	LEAD,	LEAD,	MANGA-	MANGA-
		TOTAL	DIS-	TOTAL	DIS-	NESE,	NESE,
		RECOV-	SOLVED	RECOV-	SOLVED	RECOV-	SOLVED
		ERABLE	(UG/L	ERABLE	(UG/L	ERABLE	(UG/L
		(UG/L	AS FE)	(UG/L	AS PB)	(UG/L	AS MN)
		(01045)	(01046)	(01051)	(01049)	(01055)	(01056)
NOV							
08...		35000	130	600	0	7200	0

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-	TEMPER-	SEDI-	SED.	BED	BED	BED	BED	BED	BED
		FLOW,	ATURE,	MENT,	SUSP.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.
		INSTAN-	WATER	SUS-	SIEVE	FALL	FALL	FALL	FALL	FALL	FALL
		TANEOUS	(DEG C)	PENDED	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.
		(CFS)		(MG/L)	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER
		(00061)	(00010)	(80154)	.062 MM	.062 MM	.125 MM	.250 MM	.500 MM	1.00 MM	2.00 MM
		(00061)	(00010)	(80154)	(70331)	(80158)	(80159)	(80160)	(80161)	(80162)	(80163)
NOV											
08...	1030	87	5.5	46400	89	--	--	--	--	--	--
SEP											
17...	1030	.00	--	--	--	70	93	99	100	--	--
17...	1035	.00	--	--	--	16	38	73	92	99	100
17...	1040	.00	--	--	--	19	49	86	97	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 mi² (18.3 km²).

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 (1,920.2 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 ft³/s (62.3 m³/s) Aug. 18, 1955, gage-height, 4.77 ft (1.454 m); no flow most of time.

EXTREMES FOR CURRENT YEAR.--1979 water year: Maximum discharge, 206 ft³/s (5.83 m³/s) Aug. 15, gage-height, 1.88 ft (0.573 m); no flow most of time.

1980 water year: Maximum discharge, 88 ft³/s (2.49 m³/s) Sept. 10, gage-height, 1.29 ft (0.393 m) from slope-area measurement of peak flow; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, APRIL 1979 TO SEPTEMBER 1980

May 24, 1979	4.8	August 14, 1979 .....	.83	February 21, 1980	3.5
May 25, 1979	2.2	August 15, 1979	4.5	February 22, 1980 .....	.70
May 26, 1979 .....	.21	August 16, 1979	39	September 8, 1980 .....	.48
June 2, 1979 .....	.07	August 17, 1979	14	September 9, 1980	1.1
June 3, 1979	8.2	August 18, 1979	5.8	September 10, 1980	10
June 4, 1979	1.1	August 19, 1979	1.1	September 11, 1980	9.5
August 12, 1979	1.9	October 21, 1979 .....	.22	September 12, 1980	8.2
August 13, 1979	1.4	February 20, 1980	16	September 13, 1980	1.1

Month	cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
May 1979	7.21	4.8	0	0.23	14
June 1979	9.37	8.2	0	0.31	19
August 1979	68.53	39	0	2.21	136
October 1980 .....	.22	.22	0	.007	0.44
February 1980	20.2	16	0	.70	40
September 1980	30.38	10	0	1.01	60
WTR YR 1980	50.80	16	0	0.14	101

SAN JUAN RIVER BASIN

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 mi² (118 km²).

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.--5 years, 0.76 ft³/s (0.022 m³/s), 551 acre-ft/yr (679,400 m³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,570 ft³/s (44.5 m³/s) Aug. 19, 1976, gage height, 6.22 ft (1.896 m), from rating curve extended above 60 ft³/s (1.70 m³/s) on basis of slope-area measurement of peak flow; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.8 m³/s), revised, and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
July 22	1845	120 3.40	2.55 0.777	Sept. 10	1230	*310 8.78	3.20 0.975

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
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	1.9
7	.00	.35	.00	.00	.00	.00	.00	.00	.00	.00	.00	.31
8	.00	11	.00	.00	.00	.00	.00	.43	.00	.00	.00	.00
9	.00	.00	.00	.60	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	3.0	.00	.00	.00	.00	.00	.00	.00	.37
11	.00	.00	.00	2.9	.11	.00	.00	.00	.00	.00	.00	12
12	.00	.00	.00	2.5	.74	.00	.00	.00	.00	.00	.00	3.7
13	.00	.00	.00	.00	4.0	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	1.4	5.4	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	6.6	2.2	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	1.5	.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	.82	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	8.2	.49	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	1.5	3.4	.00	.00	.00	.00	.00	.00	.00
21	23	.00	.00	2.0	.00	.00	.00	.00	.00	.00	.00	.00
22	2.5	.00	.00	1.0	.00	.00	.00	.00	.00	1.9	.00	.00
23	.34	.00	.00	.10	.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	.10	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.21	.00	2.4	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	2.8	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	1.3	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	6.0	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	5.6	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	1.8	---	.00	---	.00	---	.00	.00	---
TOTAL	25.84	11.56	.00	52.12	16.34	.00	.00	.43	.00	1.90	.00	18.28
MEAN	.83	.39	.000	1.68	.56	.000	.000	.014	.000	.061	.000	.61
MAX	23	11	.00	8.2	5.4	.00	.00	.43	.00	1.9	.00	12
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	51	23	.00	103	32	.00	.00	.9	.00	3.8	.00	36
CAL YR 1979	TOTAL 283.91	MEAN .78	MAX 30	MIN .00	AC-FT 563							
WTR YR 1980	TOTAL 126.47	MEAN .35	MAX 23	MIN .00	AC-FT 251							

SAN JUAN RIVER BASIN
09367930 HUNTER WASH AT BISTI TRADING POST, NM -- Continued
WATER-QUALITY RECORDS

493

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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (DEG C) (00010)	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)
NOV 08...	0925	25	700	8.4	6.0	5.5	90	290	0
TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980									
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, TOTAL RECOV- ERABLE (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01020)		
NOV 08...	0925	30	3	7200	200	160	90		
DATE	TIME	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, TOTAL RECOV- ERABLE (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01056)		
NOV 08...		59000	290	900	0	13000	0		

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN (70331)	BED MAT. FALL DIAM. % FINER THAN (80158)	BED MAT. FALL DIAM. % FINER THAN (80159)	BED MAT. FALL DIAM. % FINER THAN (80160)	BED MAT. FALL DIAM. % FINER THAN (80161)	BED MAT. FALL DIAM. % FINER THAN (80162)	BED MAT. FALL DIAM. % FINER THAN (80163)
NOV 08...	0925	25	5.5	134000	96	--	--	--	--	--	--
SEP 17...	0830	.00	--	--	--	32	71	98	100	--	--
17...	0835	.00	--	--	--	23	64	81	91	99	100
17...	0840	.00	--	--	--	12	29	64	89	98	100

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 mi² (18.6 km²).

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 ft³/s (7.59 m³/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, 115 ft³/s (3.26 m³/s) Aug. 24, gage height, 2.58 ft (0.786 m); no flow most of time.

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	1.1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	3.8	.00	.86	.00	.00	.00	.50	.00	.00	.00	.00
9	.00	.29	.00	1.2	.00	.00	.00	.00	.00	.00	.00	.02
10	.00	.00	.00	.61	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.04	1.2	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	1.1	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	1.2	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.23	1.9	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.83	.80	.00	.00	1.0	.00	.00	.00	.00
16	.00	.00	.00	.00	.25	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.10	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.93	.20	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	3.5	.10	.00	.00	.00	.00	.00	.00	.00
21	2.2	.00	.00	1.9	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	2.0	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	2.7	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	1.8	.00	.00	.00	.00	.00	.00	6.0	.00
25	.00	.00	.00	1.6	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	2.4	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	1.4	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.36	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.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	2.20	5.19	.00	22.36	6.85	.00	.00	1.50	.00	.00	6.00	.02
MEAN	.071	.17	.000	.72	.24	.000	.000	.048	.000	.000	.19	.001
MAX	2.2	3.8	.00	3.5	1.9	.00	.00	1.0	.00	.00	6.0	.02
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	4.4	10	.00	44	14	.00	.00	3.0	.00	.00	12	.04
CAL YR 1979	TOTAL 53.57		MEAN .15	MAX 18	MIN .00	AC-FT 106						
WTR YR 1980	TOTAL 44.12		MEAN .12	MAX 6.0	MIN .00	AC-FT 88						

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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)		
SEP 09...	1700	.22	350	9.3	20.5	19.5	7.1	15	0	4.5	.8		
DATE	TIME	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 (MG/L) AS HCO3 (00440)	CAR- BONATE (MG/L) AS CO3 (00445)	ALKA- LINITY (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)	
SEP 09...	76	9.1	2.0	33	22	64	79	11	1.0	9.4	237		
DATE	TIME	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N (00630)	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 (MG/L) AS C (00689)	
SEP 09...	223	.62	.130	12	13	2.000	90	260	6	14	26		
DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L) AS AL (01106)	ARSENIC TOTAL (UG/L) AS AS (01002)	ARSENIC DIS- SOLVED (UG/L) AS AS (01000)	BARIIUM, TOTAL RECOV- ERABLE (UG/L) AS BA (01007)	BARIIUM, 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)	
SEP 09...	1700	190	16	4	1400	20	10	<1	90	1	<1	70	
DATE	TIME	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, 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)
SEP 09...	0	48	<3	140	23	260	180	<10	100	<4	2200	6	
DATE	TIME	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)	NICKEL, DIS- SOLVED (UG/L) AS NI (01065)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L) AS SE (01147)	SELE- NIUM, DIS- SOLVED (UG/L) AS SE (01145)	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)
SEP 09...	.6	.1	2	<10	64	2	6	2	81	<6.0	430	35	

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G) AS AS (01003)	BARIIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS BA (01008)	BERYL- LIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS BE (01013)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS CD (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS CR (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)
SEP 09...	1700	4	75	0	1	2	10	1

SAN JUAN BASIN
09367934 TEEC-NI-DI-TSO WASH NEAR BURNHAM, NM -- Continued
WATER-QUALITY RECORDS

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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 FM BOT- TOM MA- TERIAL (UG/G) (01148)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS ZN) (01093)
SEP 09...	10	460	.01	0	10	0	5

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
SEP 09...	1700	11	270	3.3	280	3.1	270

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN (70331)	BED MAT. FALL DIAM. % FINER THAN (80158)	BED MAT. FALL DIAM. % FINER THAN (80159)	BED MAT. FALL DIAM. % FINER THAN (80160)
SEP 09...	1700	.22	19.5	7170	100	2	3	13
17...	1620	.00	--	--	--	10	20	47
17...	1625	.00	--	--	--	3	6	31
17...	1630	.00	--	--	--	16	62	95

DATE	BED MAT. FALL DIAM. % FINER THAN (80161)	BED MAT. FALL DIAM. % FINER THAN (80162)	BED MAT. FALL DIAM. % FINER THAN (80168)	BED MAT. FALL DIAM. % FINER THAN (80169)	BED MAT. FALL DIAM. % FINER THAN (80170)	BED MAT. FALL DIAM. % FINER THAN (80171)	BED MAT. FALL DIAM. % FINER THAN (80172)
SEP 09...	41	--	63	82	89	94	100
17...	66	--	73	77	80	86	100
17...	78	--	92	96	98	99	100
17...	99	100	--	--	--	--	--

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 Brinhall 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 mi² (22.3 km²).

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 ft³/s (14.7 m³/s) Sept. 7, 1978, gage height, 4.20 ft (1.280 m) from rating curve extended above 20 ft³/s (0.57 m³/s) on basis of slope-area measurement of peak flow; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 185 ft³/s (5.24 m³/s) Aug. 24, gage height, 2.82 ft (0.860 m), no other peak above base of 100 ft³/s (2.8 m³/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.10	.02	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.19	.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	2.0	.00	.00	.00	.00	.00	.17	.00	.08	.00	.00
8	.00	4.5	.00	.63	.02	.00	.00	.62	.00	.09	.00	.00
9	.00	.00	.00	1.2	1.0	.00	.00	.00	.00	.00	.00	.76
10	.00	.00	.00	1.1	1.5	.00	.00	.00	.00	.00	.00	1.7
11	.00	.00	.00	.48	1.4	.05	.00	.00	.00	.00	.00	.15
12	.00	.00	.00	.47	1.2	.18	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	1.3	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.53	2.6	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	1.1	.95	.00	.00	1.1	.00	.00	.00	.00
16	.00	.00	.00	.05	.38	.00	.00	.22	.00	.00	.00	.00
17	.00	.00	.00	.00	.15	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.82	.30	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	1.7	.27	.00	.00	.00	.00	.00	.00	.00
21	2.2	.00	.00	.48	.04	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.36	.24	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.19	.06	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.25	.00	.00	.00	.00	.00	.00	8.6	.00
25	.00	.00	.00	.37	.00	.00	.00	.00	.00	.00	.01	.00
26	.00	.24	.00	1.3	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.98	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.40	.24	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.15	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.35	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.30	.60	---	.00	---	.00	---	.00	.00	---
TOTAL	2.20	6.74	1.20	12.95	11.43	.23	.19	2.11	.00	.17	8.61	2.61
MEAN	.071	.22	.039	.42	.39	.007	.006	.068	.000	.005	.28	.087
MAX	2.2	4.5	.40	1.7	2.6	.18	.19	1.1	.00	.09	8.6	1.7
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	4.4	13	2.4	26	23	.5	.4	4.2	.00	.3	17	5.2

CAL YR 1979 TOTAL 61.78 MEAN .17 MAX 24 MIN .00 AC-FT 123
WTR YR 1980 TOTAL 48.44 MEAN .13 MAX 8.6 MIN .00 AC-FT 96

SAN JUAN BASIN
09367936 BURNHAM WASH NEAR BURNHAM, NM -- Continued
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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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 21...	0130	16	669	8.2	--	--	--	--	--	--	--	--
APR 02...	1600	.36	885	8.7	7.0	10.0	8.9	24	0	7.8	1.2	160
AUG 24...	1130	7.5	690	7.9	--	--	--	--	--	--	--	--
24...	1135	16	711	8.0	--	--	--	--	--	--	--	--
24...	1200	84	872	8.4	--	--	--	--	--	--	--	--
SEP 10...	1815	19	711	9.0	16.0	17.0	8.6	14	--	5.1	.3	140

DATE	TIME	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L) AS K (00935)	BICAR- BONATE (MG/L) AS HCO3 (00440)	CAR- BONATE (MG/L) AS CO3 (00445)	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N (00630)
OCT 21...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 02...	14	3.2	224	8	200	260	9.4	.8	11	589	572	4.9	--
AUG 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 10...	17	3.3	--	--	--	21	8.3	.9	14	441	--	2.5	--

DATE	TIME	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 TOTAL (MG/L) AS C (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L) AS C (00681)	CARBON, ORGANIC SUS- PENDE (MG/L) AS C (00689)	SAMPLE SOURCE (72005)
OCT 21...	--	--	--	--	--	--	--	--	86	--	--	40
APR 02...	11.000	.00	15	3.100	60	110	--	--	26	33	--	--
AUG 24...	--	--	--	--	--	--	--	--	180	--	--	40
24...	--	--	--	--	--	--	--	--	170	--	--	40
24...	--	--	--	--	--	--	--	--	330	--	--	40
SEP 10...	.470	4.2	7.2	4.700	90	100	2	--	16	140	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L) AS AL (01106)	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)
OCT 21...	0130	--	33	--	--	--	--	--	--	--
AUG 24...	1130	--	63	--	--	--	--	--	--	--
24...	1135	--	38	--	--	--	--	--	--	--
24...	1200	--	51	--	--	--	--	--	--	--
SEP 10...	1815	140	50	3	3000	10	20	<1	90	4

SAN JUAN BASIN
09367936 BURNHAM WASH NEAR BURNHAM, NM -- Continued
WATER-QUALITY RECORDS

499

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)
OCT 21...	--	--	--	--	--	--	--	--	--
AUG 24...	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--
SEP 10...	<1	150	0	100	<3	500	34	100	560
DATE	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)
OCT 21...	--	--	--	--	--	1.6	--	--	--
AUG 24...	--	--	--	--	--	1.7	--	--	--
24...	--	--	--	--	--	1.7	--	--	--
24...	--	--	--	--	--	2.3	--	--	--
SEP 10...	<10	330	11	15000	2	1.6	.0	1	<10
DATE	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	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)
OCT 21...	--	--	3	--	--	--	--	--	--
AUG 24...	--	--	2	--	--	--	--	--	40
24...	--	--	4	--	--	--	--	--	40
24...	--	--	7	--	--	--	--	--	40
SEP 10...	120	1	13	6	77	<6.0	1600	24	--

SAN JUAN BASIN
09367936 BURNHAM WASH NEAR BURNHAM, NM -- Continued
WATER-QUALITY RECORDS

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	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 AS CD) (01013)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (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)
------	------	--------------------------------------------------------------------------------	---------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------	---------------------------------------------------------------------------------	----------------------------------------------------------------------------------------	---------------------------------------------------------------------------------	---------------------------------------------------------------------------------

SEP 10...	1815	3	80	0	1	0	10	1
--------------	------	---	----	---	---	---	----	---

DATE	TIME	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	MOLYB- DENUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI) (01063)	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI) (01068)	SELE- NIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI) (01148)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)
------	------	-------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------	---------------------------------------------------------------------------------	------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------	----------------------------------------------------------------------------------------	-------------------------------------------------------------------------------

SEP 10...	10	490	.01	0	10	6	11
--------------	----	-----	-----	---	----	---	----

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
------	------	-----------------------------------------------------------------------	-----------------------------------------------------------------------	------------------------------------------------------------------------	------------------------------------------------------------------------	---------------------------------------------------------------------------	---------------------------------------------------------------------------

SEP 10...	1815	17	<1500	4.8	<900	4.5	<850
--------------	------	----	-------	-----	------	-----	------

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
------	------	---------------------------------------------------------------------------	-------------------------------------------------------------------------------

APR 02...	1600	0	600
--------------	------	---	-----

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (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)	BED MAT. FALL DIAM. % FINER THAN 2.00 MM (80163)	SAMPLE SOURCE (72005)
------	------	------------------------------------------------------------	--------------------------------------------------	-------------------------------------------------------	--------------------------------------------------------------------------	-----------------------------------------------------------------------	-----------------------------------------------------------------------	-----------------------------------------------------------------------	-----------------------------------------------------------------------	-----------------------------------------------------------------------	-----------------------------------------------------------------------	-----------------------------

OCT 21...	0130	16	--	54000	--	--	--	--	--	--	--	40
APR 02...	1600	.36	10.0	23900	--	--	--	--	--	--	--	--
AUG 24...	1130	7.5	--	73400	--	--	--	--	--	--	--	40
24...	1135	16	--	57100	--	--	--	--	--	--	--	40
24...	1200	84	--	77700	--	--	--	--	--	--	--	40
SEP 10...	1815	19	17.0	559000	98	5	10	29	74	99	100	--

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 mi² (9,430 km²).

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 ft³/s (191 m³/s) Jan. 18, 1979, gage height, 4.38 ft (1.335 m) from rating curve extended above 3,540 ft³/s (100 m³/s); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 950 ft³/s (26.9 m³/s) Jan. 15, gage height, 3.22 ft (0.981 m), no other peak above base of 1,000 ft³/s (28 m³/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	15	.00	.00	13	.00	.00	.00	.00
2	.00	.00	.00	.00	3.7	.00	.00	28	.00	.00	.00	.00
3	.00	.00	.00	.00	3.3	.00	.00	12	.00	.00	.00	.00
4	.00	.00	.00	.00	4.0	.00	.00	80	.00	.00	.00	.00
5	.00	.00	.00	.00	2.9	.00	.00	181	.00	.00	.00	2.5
6	.00	.00	.00	.00	2.0	.00	.00	100	.00	.00	.00	70
7	.00	.60	.00	.00	.20	.00	.00	88	.00	1.7	.00	17
8	.00	29	.00	.00	.00	.00	.00	96	.00	.01	.00	2.0
9	.00	80	.00	.38	.00	.00	.00	96	.00	.00	.00	2.2
10	.00	34	.00	1.7	.00	.00	.00	35	.00	.00	.00	2.5
11	.00	1.6	.00	1.4	.00	.00	.00	26	.00	.00	.00	330
12	.00	.27	.00	1.1	.00	.00	.00	26	.00	.00	.00	33
13	.00	.00	.00	2.0	.00	.00	.00	18	.00	.00	.00	2.0
14	.00	.00	.00	4.0	1.0	.00	.00	25	.00	.00	.00	.00
15	.00	.00	.00	7.2	10	.00	.00	19	.00	.00	.00	.00
16	.00	.00	.00	190	100	.00	.00	7.3	.00	.00	.00	.00
17	.00	.00	.00	54	150	.00	.00	2.8	.00	.00	.00	.00
18	.00	.00	.00	12	38	.00	.00	1.9	.00	.00	.00	.00
19	.00	.00	.00	8.2	10	.00	.00	2.6	.00	.00	.00	.00
20	.00	.00	.00	6.1	260	.00	.00	1.5	.00	.00	.00	.00
21	165	.00	.00	4.0	284	.00	.00	.36	.00	.00	.00	.00
22	62	.00	.00	1.5	160	.00	.29	.00	.00	.00	.00	.00
23	21	.00	.00	3.0	100	.00	.94	.00	.00	.00	.00	.00
24	4.6	.00	.00	2.0	24	.00	3.5	.00	.00	.00	.00	.00
25	2.1	.00	.00	3.5	4.0	.00	40	.00	.00	.00	.00	.00
26	.73	.00	.00	3.0	.60	.00	5.9	.00	.00	.00	.00	.00
27	.04	.00	.00	8.2	.00	.00	11	.00	.00	.00	.00	.00
28	.00	.00	.00	23	.00	.00	66	.00	.00	.00	.00	.00
29	.00	.00	.00	31	.00	.00	275	.00	.00	.00	.00	.00
30	.00	.00	.00	41	---	.00	137	.00	.00	.00	.00	.00
31	.00	---	.00	55	---	.00	---	.00	---	.00	.00	---
TOTAL	255.47	145.47	.00	463.28	1172.70	.00	539.63	859.46	.00	1.71	.00	461.20
MEAN	8.24	4.85	.000	14.9	40.4	.000	18.0	27.7	.000	.055	.000	15.4
MAX	165	80	.00	190	284	.00	275	181	.00	1.7	.00	330
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	507	289	.00	919	2330	.00	1070	1700	.00	3.4	.00	915

WATER YEAR 1979 TOTAL 23663.92 MEAN 64.8 MAX 3900 MIN .00 AC-FT 46940
WATER YEAR 1980 TOTAL 3498.92 MEAN 10.7 MAX 330 MIN .00 AC-FT 7730

NOTE: NO GAGE-HEIGHT RECORD DECEMBER 16 TO APRIL 24.

SAN JUAN BASIN
09367938 CHACO RIVER NEAR BURNHAM, NM -- Continued
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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS, (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
NOV 09...	1315	112	750	8.7	11.0	10.5	8.9	25	0	8.2	1.0
JAN 10...	1345	1.6	700	8.3	8.0	4.0	10.4	22	0	7.2	.9
FEB 04...	1445	4.0	700	8.5	13.0	10.0	9.5	18	0	6.5	.5
APR 28...	1200	98	305	8.3	27.0	17.5	8.1	71	0	24	2.6
MAY 07...	1600	117	320	8.3	11.0	15.0	8.1	69	0	23	2.8

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 (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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)
NOV 09...	160	14	3.3	500	16	440	180	11	.8	10	459
JAN 10...	150	14	2.2	200	0	160	180	13	.7	9.0	412
FEB 04...	140	14	2.2	290	6	250	74	11	.8	12	391
APR 28...	35	1.8	3.3	240	0	197	79	4.0	.3	16	223
MAY 07...	46	2.5	2.1	92	0	75	94	3.7	.3	15	240

DATE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	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- PENDE (MG/L AS C) (00689)
NOV 09...	638	1.7	.950	32	35	3.100	80	660	--	9.3	--
JAN 10...	462	5.1	5.600	2.0	13	2.800	30	220	--	11	21
FEB 04...	396	4.2	.320	3.9	8.4	1.900	70	80	--	7.2	32
APR 28...	283	.56	.220	4.3	5.1	2.500	130	90	--	10	4.6
MAY 07...	233	.37	.090	3.7	4.2	2.100	40	60	2	14	16

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	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)
MAY 07...	1600	30	11	2	1400	40	10	<1	40	1	<1	60

DATE	TIME	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, 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)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
MAY 07...	0	36	<3	90	<10	60	83	44	110	5	2000	2

	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYB- DENUM, TOTAL DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, TOTAL DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL DIS- SOLVED (UG/L AS SE)	STRON- TIUM, TOTAL DIS- SOLVED (UG/L AS SR)	VANA- DIUM, TOTAL DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, TOTAL DIS- SOLVED (UG/L AS ZN)
DATE	(7190)	(7189)	(01062)	(01060)	(01067)	(01065)	(01147)	(01145)	(01080)	(01085)	(01092)	(01090)
MAY 07...	.6	.0	0	<10	67	4	2	0	340	<6.0	300	4

DATE	TIME	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) AS CO) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS CU) (01038)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS CU) (01043)
MAY 07...	1600	2	70	0	1	1	0	3

DATE	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) AS NI) (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)
MAY 07...	0	160	.01	1	10	0	10

DATE	TIME	GROSS	GROSS	GROSS	GROSS	GROSS	GROSS
		ALPHA,	ALPHA,	BETA,	BETA,	BETA,	BETA,
		DIS-	SUSP.	DIS-	SUSP.	DIS-	SUSP.
		SOLVED	TOTAL	SOLVED	TOTAL	SOLVED	TOTAL
		(UG/L	(UG/L	(PCI/L	(PCI/L	(PCI/L	(PCI/L
		AS	AS	AS	AS	AS SR/	AS SR/
		U-NAT)	U-NAT)	CS-137)	CS-137)	YT-90)	YT-90)
		(80030)	(80040)	(03515)	(03516)	(80050)	(80060)
MAY							
07...	1600	< 3.6	180	3.3	160	3.2	150

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCHI FECAL, KF AGAR (COLS.) PER 100 ML) (31673)
NOV 09...	1315	2200	22000
FEB 04...	1445	0	6200
APR 28...	1200	530	11000
MAY 07...	1600	250	15750

09367938 CHACO RIVER NEAR BURNHAM, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (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)	
NOV											
09...	1315	112	10.5	62800	--	--	--	--	--	--	
JAN											
10...	1345	1.6	4.0	17900	--	--	--	--	--	--	
18...	1445	12	6.0	37200	--	--	--	--	--	--	
28...	1130	23	3.5	31800	--	--	--	--	--	--	
FEB											
04...	1445	4.0	10.0	19300	--	--	--	--	--	--	
07...	1515	.20	3.5	16300	--	--	--	--	--	--	
21...	1330	284	7.0	53400	--	--	--	--	--	--	
APR											
28...	1200	98	17.5	7570	--	--	--	--	--	--	
MAY											
07...	1600	117	15.0	6670	61	67	78	86	96	100	
13...	1440	24	15.0	3160	--	--	--	--	--	--	
SEP											
17...	1710	.00	--	--	--	--	--	--	--	--	
17...	1720	.00	--	--	--	--	--	--	--	--	
17...	1730	.00	--	--	--	--	--	--	--	--	
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. FALL DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. FALL DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. FALL DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. FALL DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. FALL DIAM. % FINER THAN 16.0 MM (80172)
NOV											
09...	--	--	--	--	--	--	--	--	--	--	--
JAN											
10...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
FEB											
04...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
APR											
28...	--	--	--	--	--	--	--	--	--	--	--
MAY											
07...	3	15	73	95	--	98	99	99	99	99	100
13...	--	--	--	--	--	--	--	--	--	--	--
SEP											
17...	10	41	90	98	100	--	--	--	--	--	--
17...	26	41	86	99	100	--	--	--	--	--	--
17...	9	29	93	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 mi² (11,300 km²).

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.

REMARKS.--Water-discharge records good, except those above 100 ft³/s (2.8 m³/s), which are fair. Base flow is mostly waste water from Four Corners Power Plant.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,300 ft³/s (207 m³/s), Sept. 20, 1969, gage height, 7.88 ft (2.402 m) site and datum then in use; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft³/s (23 m³/s), revised, and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Sept. 6	2015	*1,170 33.1	4.71 1.436	Sept. 11	0515	1,080 30.6	4.59 1.399

Minimum daily discharge, 0.31 ft³/s (0.009 m³/s) Jan. 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	4.2	4.8	.72	53	18	16	103	16	11	18	17
2	32	3.3	5.0	.80	27	17	15	86	15	12	19	16
3	33	3.3	5.2	.75	25	15	15	108	12	12	19	16
4	33	3.3	5.6	.68	29	14	14	111	10	12	19	16
5	33	3.5	6.0	.62	27	15	13	109	9.8	13	19	16
6	32	4.2	6.3	.60	26	16	13	121	9.8	12	19	116
7	34	5.5	6.0	.58	22	16	13	101	11	12	19	31
8	33	47	6.3	.57	21	16	13	126	10	13	20	13
9	32	82	6.3	.85	20	16	13	128	10	13	20	12
10	32	129	6.4	.55	20	16	12	90	10	13	20	13
11	33	80	6.2	.55	19	17	13	66	9.8	13	20	389
12	33	31	6.2	.45	19	16	13	67	9.7	13	19	46
13	34	23	6.0	.31	19	16	13	60	9.6	14	17	14
14	34	9.8	5.9	.31	19	14	13	34	10	14	18	11
15	33	5.3	5.7	15	19	9.0	15	26	10	13	17	11
16	30	4.6	5.5	211	114	10	22	30	9.8	14	17	12
17	31	5.5	5.4	130	260	11	22	22	9.3	15	17	12
18	28	4.1	5.1	46	126	9.9	21	20	9.2	18	16	13
19	27	3.9	5.0	35	51	11	20	19	9.0	18	15	12
20	27	3.3	4.0	25	58	11	19	18	9.5	18	16	12
21	95	3.2	3.0	19	134	10	18	17	9.9	18	17	12
22	105	3.2	2.0	15	146	12	17	16	9.8	17	17	13
23	67	3.2	.81	12	120	11	16	16	9.7	17	18	13
24	57	3.1	.70	10	100	12	26	17	9.2	16	19	13
25	40	3.1	.80	14	40	13	59	18	9.1	16	18	13
26	29	3.3	.84	20	33	13	44	18	8.9	15	19	14
27	25	5.3	.90	24	30	14	26	17	9.5	16	19	15
28	23	4.6	.81	27	27	15	36	17	10	16	17	15
29	25	4.6	.74	33	20	14	88	16	10	16	17	15
30	27	4.7	.66	42	---	15	108	15	10	17	17	16
31	26	---	.62	70	---	15	---	16	---	18	16	---
TOTAL	1155	494.1	124.78	756.34	1624	427.9	746	1628	305.6	455	558	937
MEAN	37.3	16.5	4.03	24.4	56.0	13.8	24.9	52.5	10.2	14.7	18.0	31.2
MAX	105	129	6.4	211	260	18	108	128	16	18	20	389
MIN	23	3.1	.62	.31	19	9.0	12	15	8.9	11	15	11
AC-FT	2290	980	248	1500	3220	849	1480	3230	606	902	1110	1860
CAL YR 1979	TOTAL	24873.98	MEAN	68.1	MAX	2330	MIN	.62	AC-FT	49340		
WTR YR 1980	TOTAL	9211.72	MEAN	25.2	MAX	389	MIN	.31	AC-FT	18270		

SAN JUAN RIVER BASIN
09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued
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, 15 mg/L May 26, 27, 1978.

SEDIMENT LOADS: Maximum daily, 740,000 tons (671,000 tonnes) Sept. 25, 1978; minimum daily, 0.02 tons (0.02 tonnes) Jan. 13-14.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily, 85,700 mg/L Sept. 11; minimum daily, 20 mg/L Jan. 13, 14.

SEDIMENT LOADS: Maximum daily, 90,000 tons (81,600 tonnes) Sept. 11; minimum daily 0.02 tons (0.02 tonnes) Jan. 13-14.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

									OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)		HARD- NESS (MG/L AS CACO3) (00900)
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)			
OCT											
21...	1420	230	2200	7.0	--	--	--	--	--	--	
21...	1440	338	2200	7.1	--	--	--	--	--	--	
NOV											
07...	1600	5.8	3900	8.0	--	9.0	--	--	--	--	
27...	1350	5.3	3400	7.8	3.0	6.0	--	--	--	--	
28...	0800	3.5	4250	8.1	-4.0	.0	47	12.8	34	1700	
DEC											
18...	1611	8.7	4250	8.5	--	2.0	--	--	--	--	
JAN											
09...	1350	.56	10900	8.2	--	7.0	--	--	--	--	
FEB											
05...	0830	29	1390	8.5	-2.0	4.5	6300	10.7	130	370	
MAR											
05...	1015	--	1190	8.2	--	--	--	--	--	--	
APR											
02...	1000	16	1950	7.8	4.0	6.0	--	--	--	--	
29...	0815	84	840	8.5	14.5	13.0	8400	8.4	30	150	
AUG											
05...	1415	20	1340	8.4	36.0	32.0	280	6.3	30	380	
SEP											
11...	1730	1050	1550	7.2	--	--	--	--	--	--	
DATE		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)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT											
21...		--	--	--	--	--	--	--	--	--	--
21...		--	--	--	--	--	--	--	--	--	--
NOV											
07...		--	--	--	--	--	--	--	--	--	--
27...		--	--	--	--	--	--	--	--	--	--
28...	1600	500	110	420	4.4	12	--	--	--	110	2100
DEC											
18...		--	--	--	--	--	--	--	--	--	--
JAN											
09...		--	--	--	--	--	--	350	0	287	--
FEB											
05...	240	110	23	200	4.5	5.5	--	--	--	130	540
MAR											
05...		--	--	--	--	--	--	--	--	--	--
APR											
02...		--	--	--	--	--	--	--	140	230	--
29...	55	45	8.9	130	4.6	4.5	--	--	--	95	270
AUG											
05...	290	97	32	160	3.6	6.9	--	--	--	86	520
SEP											
11...		--	--	--	--	--	--	180	--	150	--

[illegible][illegible]

[illegible]

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)	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)
OCT											
21...	--	--	--	370000	--	800	--	--	--	15000	--
21...	--	--	--	320000	--	900	--	--	--	15000	--
NOV											
07...	--	--	--	3300	20	0	0	230	260	110	70
27...	--	--	--	7600	40	400	2	200	220	150	20
28...	0	8	0	1900	60	8	4	--	--	90	80
DEC											
18...	--	--	--	4400	40	200	0	320	310	100	10
JAN											
09...	--	--	--	230	20	--	--	--	--	40	0
FEB											
05...	0	190	0	98000	10	96	0	130	40	1700	10
APR											
02...	--	--	--	5800	60	--	--	--	--	120	20
29...	0	320	5	200000	0	240	2	220	30	5500	10
AUG											
05...	< 3	35	3	10000	< 10	22	1	70	60	150	6
SEP											
11...	--	--	--	190000	--	--	--	--	--	6400	--

[illegible]

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)	SELE- NIUM, RECOV. TOTAL IN BOT- TOM MA- TERIAL (UG/G) (01148)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C) (00693)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C) (00687)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C) (00686)
NOV 28...	25000	500	110	.00	1	3	2.1	.0	2.1
FEB 05...	20000	0	190	.01	0	6	4.0	2.2	1.8
APR 29...	4200	10	170	.01	0	10	2.2	.7	1.5
AUG 05...	2800	0	180	.01	0	12	2.5	.8	1.7

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)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L) (80020)
NOV 28...	0800	<67	4.2	<23	5.5	<21	5.6	.09	16
FEB 05...	0830	<17	410	12	150	13	150	.18	6.4
APR 29...	0815	<9.2	600	5.0	400	5.2	400	.10	3.8
AUG 05...	1415	<14	17	10	15	9.9	14	.10	4.1

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 28...	0800	23	750
FEB 05...	0830	100	4200
APR 29...	0815	900	2900
AUG 05...	1415	40	110

SAN JUAN RIVER BASIN
09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued
WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 28,79	AUG 5,80
TIME	0800	1415
TOTAL CELLS/ML	220	15000
DIVERSITY: DIVISION	0.4	1.2
..CLASS	0.4	1.2
..ORDER	0.4	1.4
...FAMILY	0.4	1.5
....GENUS	0.4	1.5
ORGANISM	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OOCYSTACEAE		
....KIRCHNERIELLA	--	* 0
....OOCYSTIS	--	2400# 16
....TETRAEDRON	--	* 0
...TETRASPORALES		
...COCCOMYXACEAE		
...ELAKATOTHRIX	--	* 0
...VOLVOCALES		
...CHLAMYDOMONADACEAE		
...CHLAMYDOMONAS	200# 93	--
...ZYGNEMATALES		
...DESMIDIACEAE		
...COSMARIUM	--	260 2
...STAUSTRUM	--	260 2
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
...CENTRALES		
...COSCINODISCACEAE		
...CYCLOTELLA	10 5	100 1
...PENNIALES		
...NAVICULACEAE		
...NAVICULA	5 2	470 3
...NITZSCHIA		
...NITZSCHIA	--	990 7
CYANOPHYTA (BLUE-GREEN ALGAE)		
..CYANOPHYCEAE		
...HORMOGONALES		
...NOSTOCACEAE		
...APHANIZOMENON	--	10000# 69

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 1979 TO SEPTEMBER 1980
PERIPHYTON

DATE	TIME	LENGTH OF EXPO- SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00022)	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
MAR 04...	1715	27	.160	.080	.010	.000	8000	Polyethylene strip
APR 29...	0815	56	1.58	1.58	.160	.000	.00	"
SEP 04...	0910	29	51.1	46.8	14.2	2.96	303	"

SAN JUAN RIVER BASIN
09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued
WATER-QUALITY RECORDS

511

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
OCT						
21...	1420	230	--	64400	89	40
21...	1440	338	--	58800	94	40
22...	1545	39	13.0	53800	99	26
22...	1600	39	13.0	42600	99	--
NOV						
07...	1600	5.8	9.0	143	67	--
27...	1230	5.3	7.5	1620	94	--
27...	1350	5.3	6.0	367	87	--
28...	0800	3.5	.0	148	76	--
DEC						
18...	1611	8.7	2.0	253	95	--
JAN						
09...	1350	.56	7.0	138	98	--
FEB						
05...	1030	28	4.5	8230	99	--
16...	2000	136	--	87000	83	40
APR						
02...	1000	16	6.0	391	99	--
29...	0900	84	13.0	20900	92	--
AUG						
05...	1845	19	32.0	446	95	--

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION	
	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15000	1300	150	1.7	650	8.4	100	.19	32100	4590	617	30
2	15000	1300	140	1.2	200	2.7	110	.24	8230	600	588	27
3	15700	1400	140	1.2	200	2.8	100	.20	5930	400	494	20
4	15700	1400	140	1.2	250	3.8	90	.17	10900	853	500	19
5	15700	1400	140	1.3	280	4.5	80	.13	8230	600	494	20
6	15000	1300	140	1.6	300	5.1	80	.13	7120	500	532	23
7	16300	1500	143	2.1	280	4.5	75	.12	2690	160	532	23
8	15700	1400	23100	7740	300	5.1	75	.12	1230	70	532	23
9	15000	1300	40000	8860	300	5.1	138	.32	926	50	532	23
10	15000	1300	55400	19300	300	5.2	70	.10	926	50	532	23
11	15700	1400	37000	7990	300	5.0	70	.10	926	50	588	27
12	15700	1400	12500	1050	300	5.0	40	.05	780	40	532	23
13	16300	1500	3220	200	950	15	20	.02	780	40	532	23
14	16300	1500	500	13	1580	25	20	.02	780	40	500	19
15	15700	1400	300	4.3	730	11	7490	1670	780	40	200	4.9
16	11700	948	200	2.5	530	7.9	65200	42800	19200	23000	370	10
17	13100	1100	200	3.0	450	6.6	56700	19900	74100	52000	414	12
18	9260	700	150	1.7	400	5.5	33800	4200	52600	17900	337	9.0
19	8230	600	150	1.6	520	7.0	19000	1800	31200	4300	414	12
20	8230	600	100	.89	380	4.1	5930	400	34500	5400	414	12
21	33200	13800	100	.86	260	2.1	780	40	54000	22200	370	10
22	51000	14500	103	.89	200	1.1	494	20	59600	23500	432	14
23	37600	6800	120	1.0	110	.24	432	14	54000	17500	414	12
24	32400	4990	230	1.9	90	.17	370	10	44500	26500	432	14
25	24100	2600	340	2.8	110	.24	500	19	24100	2600	456	16
26	11200	877	300	2.7	130	.29	926	50	18000	1600	456	16
27	5930	400	330	4.7	160	.39	4630	300	11700	948	500	19
28	3700	230	380	4.7	110	.24	8230	600	8230	600	494	20
29	5930	400	700	8.7	100	.20	14600	1300	926	50	500	19
30	8230	600	690	8.8	85	.15	24700	2800	---	---	494	20
31	7120	500	---	---	80	.13	38100	7200	---	---	494	20
TOTAL	---	70445	---	45214.34	---	144.55	---	83124.91	---	206181	---	562.9

WATER-QUALITY RECORDS

[illegible]

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 mi² (33,400 km²), 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. Since 1962 flow partly regulated by Navajo Reservoir (station 09355100). Diversions for irrigation of about 118,000 acres (480 km²) 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.--54 years (water years 1927-80), 2,193 ft³/s (62.11 m³/s), 1,589,000 acre-ft/yr (1.96 km³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD (SINCE 1927).--Maximum discharge, about 80,000 ft³/s (2,270 m³/s) Aug. 11, 1929, gage height, 5.7 ft (1.73 m), site and datum then in use; minimum daily, 8 ft³/s (0.23 m³/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.--Peak discharges above base of 6,000 ft³/s (170 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Apr. 23	2330	7,270 206	6.79 2.070	June 13	0745	*11,000 312	7.86 2.396
May 24	2245	7,060 200	6.78 2.067	Sept. 11	0815	6,020 170	6.48 1.975

Minimum daily discharge, 373 ft³/s (10.6 m³/s) Nov. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1100	1010	1900	2040	2180	2720	1640	5970	5610	3730	1170	1380
2	1110	930	2100	2050	2120	2660	1340	5520	5650	3680	1140	1300
3	1070	905	2120	2070	2070	2660	1150	5110	5160	3430	1140	1250
4	1070	896	2020	2050	2070	2650	952	5080	5350	3160	1230	1170
5	1060	902	2030	2030	2010	2610	1150	5400	5790	2980	1150	1200
6	1160	917	2050	2000	1960	2560	1330	5770	6550	2750	1130	1340
7	1130	970	2010	1990	1990	2540	1840	5890	7140	2530	1100	1370
8	954	1090	2030	2010	2030	2670	1660	6240	6910	2340	1070	1270
9	721	1220	2070	2020	2040	2680	1600	6170	6810	2490	1120	1400
10	507	1040	2090	2100	2040	2700	1760	5430	8190	2320	1230	2600
11	443	853	2100	2100	2070	3330	2140	4770	9440	2130	1170	4800
12	438	665	2110	2090	2040	3650	2090	4560	10200	1940	1080	3930
13	560	521	2080	2020	2030	3510	1830	4170	10400	1890	1040	2790
14	569	490	2150	2040	2030	3370	1760	3880	9740	1920	1030	2380
15	750	484	2090	2160	2160	3350	1900	3590	8980	1860	1140	2130
16	885	469	2070	2350	2690	3440	2370	3680	7780	1730	1140	1890
17	842	438	2090	2250	2800	3480	2960	3380	6960	1670	1200	1690
18	781	420	2090	2170	2570	3440	3510	3460	6500	1470	1220	1560
19	717	396	2090	2200	2670	3490	4260	3720	6470	1390	1200	1500
20	785	396	2110	2320	3790	3490	5060	3820	6540	1270	1200	1360
21	1510	373	2100	2400	3530	3550	5650	4490	6150	1170	1180	1260
22	1650	380	2150	2230	3260	3740	6150	5190	5860	1090	1130	1220
23	1370	538	2120	2190	2740	3790	6910	6280	5410	975	1190	1200
24	1260	547	2060	2150	2610	3760	6520	6710	5320	990	1370	1190
25	1100	552	2030	2110	2370	3450	5780	6310	5260	984	1720	1160
26	1190	588	2030	2070	2520	3090	5260	4970	4950	1060	2320	1170
27	1120	756	2190	2110	2620	2800	5190	4420	4820	1130	2210	1210
28	944	942	2140	2080	2610	2720	5380	4340	4600	1160	2030	1150
29	863	1150	2130	2080	2670	2330	5600	4650	4320	1090	1740	1110
30	881	1560	2080	2200	---	1870	5980	5160	3890	1080	1590	1090
31	964	---	2050	2280	---	1890	---	5410	---	1120	1470	---
TOTAL	29504	22398	64480	65960	70290	93990	100722	153540	196750	58529	40850	50070
MEAN	952	747	2080	2128	2424	3032	3357	4953	6558	1888	1318	1669
MAX	1650	1560	2190	2400	3790	3790	6910	6710	10400	3730	2320	4800
MIN	438	373	1900	1990	1960	1870	952	3380	3890	975	1030	1090
AC-FT	58520	44430	127900	130800	139400	186400	199800	304500	390300	116100	81030	99310
CAL YR 1979 TOTAL	1383633	MEAN	3791	MAX	13700	MIN	276	AC-FT	2744000			
WTR YR 1980 TOTAL	947083	MEAN	2588	MAX	10400	MIN	373	AC-FT	1879000			

SAN JUAN RIVER BASIN
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.--Continuous water-temperature and specific conductance recorders since March 1978.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (Water years 1957-80): 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, 2,900 micromhos Aug. 24; minimum daily, 185 micromhos June 14-15.

WATER TEMPERATURES: Maximum, 27.0°C July 25, 30; minimum, 0.0°C Nov. 29.

SEDIMENT CONCENTRATIONS: Maximum daily, 26,400 mg/L Sept. 11; minimum daily, 26 mg/L July 29.

SEDIMENT LOADS: Maximum daily, 345,000 tons (313,000 tonnes) Sept. 11; minimum daily, 67 tons (61 tonnes) Nov. 21.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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										
24...	0730	1310	790	8.2	10.0	9.0	73	9.0	41	260
NOV										
28...	1100	888	649	8.1	.5	2.0	29	12.6	27	240
DEC										
19...	0800	2080	440	8.2	-1.0	2.0	27	--	11	160
JAN										
24...	0800	2170	497	8.3	-2.0	3.0	480	11.2	89	140
FEB										
05...	1300	1970	459	8.2	8.0	6.0	170	10.9	20	170
MAR										
05...	0910	2510	485	8.3	12.0	5.0	200	11.0	34	170
APR										
01...	0910	1740	521	8.4	3.0	5.0	110	11.1	20	220
29...	1400	5960	360	7.9	20.5	12.0	290	10.0	38	160
JUN										
03...	1045	5160	320	8.4	29.0	13.5	35	9.1	14	120
JUL										
08...	1040	2340	410	7.6	33.0	23.0	13	8.5	14	160
AUG										
05...	1020	1110	560	7.9	31.5	22.5	21	8.9	19	180
SEP										
03...	1515	1170	560	8.8	31.0	19.5	12	9.6	62	190
29...	1530	1110	510	8.5	30.0	18.0	13	12.0	13	190

SAN JUAN RIVER BASIN
09368000 SAN JUAN RIVER AT SHIPROCK, NM --- Continued
WATER-QUALITY RECORDS

515

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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- LITY (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)
OCT 24...	130	79	15	71	1.9	4.1	130	260	20	.5
NOV 28...	120	71	14	48	1.4	2.7	120	180	13	.3
DEC 19...	66	47	9.5	27	.9	2.1	91	120	9.4	.2
JAN 24...	44	42	7.6	37	1.4	2.1	92	120	8.6	.3
FEB 05...	79	54	9.4	33	1.1	2.2	95	130	10	.3
MAR 05...	73	51	11	40	1.3	2.5	100	150	10	.3
APR 01...	110	63	15	38	1.1	2.4	110	170	11	.2
29...	68	45	11	22	.8	1.9	90	95	5.1	.2
JUN 03...	47	36	7.1	14	.6	1.4	72	70	4.4	.5
JUL 08...	57	49	8.5	25	.9	2.0	100	110	8.4	.3
AUG 05...	86	55	11	40	1.3	2.8	97	140	11	.4
SEP 03...	90	56	12	43	1.4	2.8	99	160	14	.4
29...	82	57	12	40	1.3	2.7	110	160	11	.3

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)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	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, DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)
OCT 24...	10	568	540	1140	.51	.51	.090	.080	1.2
NOV 28...	7.7	446	410	72	.32	.24	.060	.070	.47
DEC 19...	11	296	282	78	.20	.20	.100	.070	.45
JAN 24...	10	289	285	1210	.41	.36	.100	.010	1.1
FEB 05...	10	317	308	240	.40	.36	.030	.040	.62
MAR 05...	11	354	337	794	.29	.28	.060	.060	1.0
APR 01...	9.6	383	377	230	.31	.28	.090	.130	.91
29...	8.8	250	244	---	.16	.16	.030	.030	.97
JUN 03...	6.3	193	183	115	.14	.07	.040	.030	.61
JUL 08...	7.1	277	271	---	.20	.16	.020	.040	.48
AUG 05...	6.6	354	326	46	.05	.09	.090	.000	2.4
SEP 03...	6.8	376	355	36	4.2	.00	.030	.020	.57
29...	6.7	388	356	---	.00	.00	.000	.030	.76

SAN JUAN RIVER BASIN
09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued
WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHOPH- OSPHATE DISSOL. (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, SUS- PENDE (MG/L AS C) (00689)
OCT 24...	1.8	.330	.030	210	20	--	14	3.8	.3
NOV 28...	.85	.090	.030	80	10	30	--	9.2	.5
DEC 19...	.75	.080	.040	70	10	--	6.1	3.1	.8
JAN 24...	1.6	.360	.040	40	10	4	--	8.3	.8
FEB 05...	1.1	.130	.030	60	<10	--	7.1	4.3	.9
MAR 05...	1.4	.300	.010	60	<10	--	16	6.9	2.7
APR 01...	1.3	.180	.040	60	<10	8	--	3.8	1.0
29...	1.2	.300	.010	40	10	--	16	7.4	1.0
JUN 03...	.79	.160	.050	30	20	--	7.4	6.0	.7
JUL 08...	.70	.100	.000	4	<10	5	--	3.7	.5
AUG 05...	2.6	.080	.060	90	<10	--	5.8	4.3	.8
SEP 03...	4.8	.080	.010	100	<10	--	4.9	5.2	.4
29...	.76	.060	.020	60	<10	7	--	5.6	.7

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 28...	1100	2	1	300	60	80	0	<1	10	0	3	<3
DEC 19...	0800	--	--	--	--	70	--	--	--	--	--	--
JAN 24...	0800	4	1	400	60	40	1	1	20	0	12	<3
FEB 05...	1300	--	--	--	--	60	--	--	--	--	--	--
APR 01...	0910	2	0	200	70	60	1	1	0	0	5	<3
29...	1400	--	--	--	--	40	--	--	--	--	--	--
JUL 08...	1040	2	1	100	70	4	0	2	10	10	1	<3
AUG 05...	1020	--	--	--	--	90	--	--	--	--	--	--
SEP 29...	1530	2	1	100	60	60	0	<1	0	0	1	<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 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 28...	4	0	1800	10	3	6	--	--	110	30	.0
DEC 19...	--	--	--	10	--	--	--	--	--	--	--
JAN 24...	34	1	19000	10	27	0	--	--	500	4	.0
FEB 05...	--	--	--	<10	--	--	30	20	--	--	--
APR 01...	8	3	5500	<10	11	0	--	--	360	8	.1
29...	--	--	--	10	--	--	30	10	--	--	--
JUL 08...	5	5	2000	<10	2	0	--	--	160	5	.2
AUG 05...	--	--	--	<10	--	--	30	20	--	--	--
SEP 29...	7	0	810	<10	5	0	--	--	50	7	.2

SAN JUAN RIVER BASIN
09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued
WATER-QUALITY RECORDS

517

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 28...	.0	7	1	1	1	0	0	--	--	50	6
DEC 19...	--	--	--	--	--	0	--	--	--	--	--
JAN 24...	.1	15	2	2	1	0	0	--	--	100	<3
FEB 05...	--	--	--	--	--	0	--	590	570	--	--
APR 01...	.0	10	0	2	2	0	0	--	--	60	3
29...	--	--	--	--	--	0	--	470	470	--	--
JUL 08...	.1	1	3	1	1	0	0	--	--	110	10
AUG 05...	--	--	--	--	--	0	--	600	680	--	--
SEP 29...	.0	6	0	2	2	0	0	--	--	20	4

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	GROSS ALPHA, DIS- SOLVED (UG/L U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L 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)
NOV 28...	1100	72	<6.6	1.8	<3.1	1.7	<3.0	1.8	.08	--	2.3
APR 01...	0910	230	<5.5	14	2.7	6.9	2.8	7.1	.06	--	1.7
SEP 29...	1530	--	<6.4	1.1	4.6	.8	4.4	.8	.07	1.7	--

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

		PCB	ALDRIN,	CHLOR-	DDD,	DDE,	DDT,	DI-	DI-
DATE	TIME	TOTAL	TOTAL	DANE,	TOTAL	TOTAL	TOTAL	AZINON,	ELDRIN
		(UG/L)	(UG/L)	TOTAL	(UG/L)	(UG/L)	(UG/L)	(UG/L)	TOTAL
		(39516)	(39330)	(39350)	(39360)	(39365)	(39370)	(39570)	(39380)
SEP									
29...	1530	.00	.00	.0	.00	.00	.00	.00	.00
	ENDO-			HEPTA-	HEPTA-		METH-	METHYL	
	SULFAN,	ENDRIN,	ETHION,	CHLOR,	CHLOR	LINDANE	THION,	PARA-	THION,
	TOTAL	TOTAL	TOTAL	TOTAL	EPOXIDE	TOTAL	TOTAL	CHLOR,	THION,
DATE	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
	(39388)	(39390)	(39398)	(39410)	(39420)	(39340)	(39530)	(39480)	(39600)
SEP									
29...	.00	.00	.00	.00	.00	.00	.00	.00	.00
	METHYL							NAPH-	
	TRI-	PARA-	TOX-	TOTAL				THA-	
	THION,	THION,	APHENE,	TRI-	2,4,5-T	SILVEX,	PER-	LENES,	
	TOTAL	TOTAL	TOTAL	THION	TOTAL	TOTAL	THANE	POLY-	
DATE	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	CHLOR.	MIREX,
	(39790)	(39540)	(39400)	(39786)	(39740)	(39760)	(39034)	(39250)	(39755)
SEP									
29...	.00	.00	0	.00	.00	.00	.00	.0	.00

SAN JUAN RIVER BASIN

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

WATER-QUALITY RECORDS

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
24...	0730	770	4300
NOV			
28...	1100	43	10
DEC			
19...	0800	3	15
JAN			
24...	0800	4	18
FEB			
05...	1300	3	80
MAR			
05...	0910	5	110
APR			
01...	0910	2400	26
29...	1400	700	300
JUN			
03...	1045	280	250
JUL			
08...	1040	1000	160
AUG			
05...	1020	2100	160
SEP			
03...	1515	67	K15
29...	1530	120	50

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	OCT 24,79	MAR 5,80	JUN 3,80	SEP 3,80				
TIME	0730	0910	1045	1515				
TOTAL CELLS/ML	2200	1200	750	1400				
DIVERSITY: DIVISION	0.3	1.0	1.3	1.1				
..CLASS	0.3	1.0	1.3	1.1				
..ORDER	0.3	1.2	1.5	1.4				
...FAMILY	1.7	3.3	2.3	2.3				
....GENUS	1.7	3.4	2.3	2.3				
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
...COELASTRACEAE								
....COELASTRUM	--	-	150	13	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	29	4	13	1
....DICTYOSPHAERIUM	--	-	--	-	--	-	13	1
...OOCYSTIS	--	-	--	-	14	2	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	14	1	14	2	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....STAUSTRUM	--	-	--	-	--	-	13	1
CHRYSOPHYTA								
..BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	--	-	29	4	26	2
...MELOSIRA	--	-	27	2	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	29	4	13	1
...COCONEIS	--	-	27	2	--	-	--	-
...RHOICOSPHEINIA	--	-	--	-	--	-	13	1
...CYMBELLACEAE								
....CYMBELLA	--	-	160	14	14	2	13	1
...DIATOMACEAE								
....DIATOMA	--	-	69	6	29	4	--	-
...FRAGILARIACEAE								
....FRAGILARIA	130	6	55	5	86	12	--	-
...SYNEDRA	--	-	55	5	--	-	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	27	2	14	2	39	3
...NAVICULACEAE								
....NAVICULA	1300#	59	220#	19	29	4	430#	31
...NITZSCHACEAE								
....NITZSCHIA	520#	24	120	11	29	4	310#	22
...SURIRELLACEAE								
....SURIRELLA	130	6	120	11	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	--	-	--	-	39	3
...HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	480#	34
...OSCILLATORIACEAE								
....LYNGBYA	--	-	--	-	430#	58	--	-
...OSCILLATORIA	--	-	110	9	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
..EUGLENOPHYCEAE								
...EUGLENALES								
...EUGLENACEAE								
....EUGLENA	130	6	--	-	--	-	--	-

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 1979 TO SEPTEMBER 1980
PERIPHYTON

DATE	TIME	LENGTH OF EXPOSURE (DAYS)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERI-PHYTON CHROMO-FLUOROM (MG/M2) (70957)	CHLOR-B PERI-PHYTON CHROMO-FLUOROM (MG/M2) (70958)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS) (70950)
OCT 24...	0730	29	16.0	14.5	6.90	.170	217
FEB 05...	1300	11	.310	.310	.100	.000	.00
MAR 05...	0910	28	.080	.080	.020	.000	.00
AUG 05...	1020	27	3.31	1.65	.140	.090	11860

SAN JUAN RIVER BASIN
09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued
WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (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											
22...	1815	1600	12.0	8360	36100	55	62	--	76	--	81
24...	0730	1310	9.0	1210	4280	67	77	--	88	--	--
NOV											
10...	1730	1000	8.5	2800	7560	43	50	--	55	--	56
28...	1100	888	2.0	1250	3000	1	1	1	2	3	4
DEC											
19...	0800	2080	2.0	257	1440	--	--	--	--	--	29
JAN											
24...	0800	2170	3.0	2010	11800	47	52	--	57	--	63
31...	1930	2160	5.0	9800	57200	36	40	--	47	--	52
FEB											
05...	1300	1970	6.0	2270	12100	8	9	9	9	10	11
APR											
01...	0910	1740	5.0	2110	9910	--	--	--	--	--	12
29...	1400	5960	12.0	1840	29600	21	24	--	32	--	61
MAY											
23...	0830	6180	12.0	2670	44600	11	13	--	41	--	48
JUN											
03...	1045	5160	13.5	511	7120	--	--	--	--	--	29
14...	1030	9860	13.0	742	19800	13	19	26	30	38	56
JUL											
08...	1040	2340	23.0	717	4530	--	--	--	--	--	9
AUG											
05...	1020	1110	22.5	78	234	--	--	--	--	--	--
SEP											
03...	1515	1170	19.5	60	190	--	--	--	--	--	--
11...	0930	5580	15.0	31400	473000	48	53	--	80	--	99
29...	1530	1110	18.0	45	135	--	--	--	--	--	--

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. FALL DIAM. % FINER THAN 2.00 MM (70347)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70335)
OCT										
22...	83	89	96	100	--	--	--	--	--	--
24...	--	--	--	--	--	95	98	99	100	--
NOV										
10...	57	63	81	100	--	--	--	--	--	--
28...	5	9	72	100	--	--	--	--	--	--
DEC										
19...	40	57	98	100	--	--	--	--	--	--
JAN										
24...	65	72	85	100	--	--	--	--	--	--
31...	54	59	73	100	--	--	--	--	--	--
FEB										
05...	12	18	32	98	100	--	--	--	--	--
APR										
01...	15	25	66	99	100	--	--	--	--	--
29...	83	97	100	--	--	--	--	--	--	--
MAY										
23...	75	92	99	100	--	--	--	--	--	--
JUN										
03...	44	72	98	100	--	--	--	--	--	--
14...	77	96	100	--	--	--	--	--	--	--
JUL										
08...	11	18	86	100	--	--	--	--	--	--
AUG										
05...	--	--	--	--	--	50	55	68	87	100
SEP										
03...	--	--	--	--	--	49	57	72	92	100
11...	100	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	55	60	75	95	100

SAN JUAN RIVER BASIN
09368000 SAN JUAN RIVER AT SHIPROCK, NM --- Continued
WATER-QUALITY RECORDS

521

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	524	706	462	429	500	493	---	369	308	317	607	492
2	527	---	454	427	474	534	688	381	307	310	579	523
3	566	---	446	444	476	549	730	381	319	326	551	506
4	567	726	450	436	466	537	704	388	310	346	543	526
5	---	724	455	---	466	478	650	371	297	358	527	529
6	---	709	470	434	463	---	631	380	280	369	545	535
7	---	732	---	436	468	---	649	361	277	392	523	514
8	---	717	461	443	---	---	618	359	263	407	555	539
9	653	848	448	453	---	494	561	382	270	414	554	569
10	668	799	479	472	---	487	570	361	280	418	573	542
11	788	787	---	495	---	---	553	387	278	424	537	1350
12	893	854	453	---	464	498	598	384	271	446	528	446
13	909	888	466	---	458	479	586	400	244	454	547	404
14	---	902	459	---	456	---	469	426	247	441	524	437
15	673	923	---	---	451	---	436	437	244	440	524	491
16	714	---	438	---	---	469	446	441	257	479	548	482
17	634	932	435	---	583	453	410	466	263	471	525	507
18	657	933	439	493	543	452	396	464	269	489	523	525
19	696	947	419	491	575	---	398	421	249	502	513	582
20	706	927	413	485	768	---	---	419	246	516	551	594
21	837	965	---	518	641	461	---	397	256	561	503	653
22	1050	---	---	536	---	468	---	364	267	540	531	548
23	807	657	---	508	---	459	---	330	277	547	556	554
24	804	764	---	509	574	462	---	320	259	557	623	573
25	794	752	---	497	---	470	---	314	257	570	625	551
26	---	777	---	497	495	473	---	342	265	614	593	527
27	753	710	---	493	490	496	---	365	267	558	516	534
28	802	637	---	485	487	496	---	371	269	554	512	543
29	797	555	462	498	501	610	---	349	292	553	516	563
30	791	501	439	563	---	624	---	329	329	593	543	537
31	794	---	438	583	---	---	---	325	---	610	538	---
MEAN	736	784	449	484	514	497	561	380	274	470	546	556
WTR YR 1980	MEAN		521	MAX	1350	MIN	244					

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), RECORDER MAXIMUM, MINIMUM, AND MEAN
WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	525	440	485	430	405	419
2	---	---	---	---	---	---	475	435	454	425	400	411
3	615	590	604	---	---	---	480	435	451	435	415	424
4	615	590	604	---	---	---	480	435	451	430	420	425
5	630	595	616	---	---	---	490	430	459	430	420	425
6	645	610	628	---	---	---	470	440	456	440	415	426
7	655	620	637	---	---	---	460	435	449	435	420	426
8	655	620	640	---	---	---	475	435	452	445	420	428
9	655	645	651	---	---	---	470	435	452	435	415	427
10	665	630	647	---	---	---	495	435	459	485	435	451
11	660	625	643	---	---	---	485	455	466	500	470	481
12	680	375	610	---	---	---	465	440	455	500	475	485
13	---	---	---	---	---	---	525	430	458	500	470	480
14	---	---	---	---	---	---	535	460	483	480	465	474
15	---	---	---	---	---	---	465	425	449	535	480	505
16	---	---	---	---	---	---	455	430	442	720	510	600
17	---	---	---	---	---	---	475	425	445	580	485	517
18	---	---	---	---	---	---	455	405	433	485	465	474
19	---	---	---	---	---	---	450	400	423	530	475	497
20	---	---	---	---	---	---	450	400	419	540	510	525
21	---	---	---	---	---	---	460	410	436	630	520	570
22	---	---	---	---	---	---	455	425	435	580	505	526
23	---	---	---	---	---	---	435	425	431	560	490	520
24	---	---	---	---	---	---	435	415	424	515	475	492
25	---	---	---	---	---	---	430	410	418	495	475	482
26	---	---	---	---	---	---	440	415	425	495	465	480
27	---	---	---	---	---	---	455	430	443	490	475	479
28	---	---	---	660	625	647	470	450	461	495	470	479
29	---	---	---	640	540	607	465	445	456	525	470	492
30	---	---	---	575	500	540	450	425	435	555	470	502
31	---	---	---	---	---	---	425	420	423	575	530	556
MONTH	680	375	628	660	500	598	535	400	446	720	400	480

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), RECORDER MAXIMUM MINIMUM, AND MEAN, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980												
DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1	560	480	512	490	460	477	550	515	528	285	280	283
2	510	470	483	485	445	463	595	550	570	290	255	277
3	475	460	468	475	450	458	670	600	632	290	270	284
4	465	455	463	480	455	462	700	675	689	295	280	289
5	490	460	468	495	475	486	695	650	670	295	285	289
6	485	455	465	485	465	471	650	630	645	300	280	294
7	465	455	462	475	460	464	630	595	612	295	280	285
8	460	455	456	470	440	455	600	565	579	280	270	271
9	475	455	466	440	425	431	610	590	598	270	260	266
10	465	455	461	440	420	429	635	615	621	275	270	271
11	465	450	454	450	395	418	655	635	648	290	275	282
12	455	440	446	450	415	436	660	650	657	290	290	290
13	450	440	445	450	435	443	660	655	659	300	290	296
14	450	440	445	430	410	421	660	655	659	325	295	314
15	500	450	466	420	395	408	665	660	661	330	325	328
16	685	490	594	425	410	419	660	650	657	350	330	344
17	730	565	648	425	410	415	650	635	644	450	345	366
18	550	495	527	425	415	420	635	630	631	495	410	443
19	560	505	532	430	390	400	645	630	637	420	375	397
20	705	490	632	410	395	400	655	645	653	380	365	369
21	710	620	662	400	385	394	655	645	650	445	375	424
22	695	570	611	405	375	391	645	400	492	390	375	383
23	705	585	644	410	375	388	420	405	411	375	260	341
24	580	545	559	395	375	383	415	395	401	370	250	288
25	550	510	524	395	390	392	410	395	404	345	315	334
26	530	465	491	405	400	402	420	405	412	350	330	338
27	480	465	471	420	405	411	420	410	414	345	325	338
28	490	465	472	435	420	430	415	405	411	355	325	337
29	500	455	473	480	435	448	435	210	337	365	300	350
30	---	---	---	510	485	498	285	275	281	315	285	293
31	---	---	---	515	510	513	---	---	---	385	330	371
MONTH	730	440	510	515	375	433	700	210	562	495	250	324
DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	360	330	342	285	275	280	585	565	577	535	520	526
2	325	320	324	285	265	276	635	555	571	540	520	531
3	330	320	323	425	280	315	590	555	572	555	530	541
4	335	330	332	345	305	313	580	525	540	555	525	533
5	330	320	327	335	315	322	535	520	528	550	525	536
6	320	285	300	340	325	332	530	500	516	560	520	545
7	285	265	273	360	340	350	545	510	528	1410	560	678
8	265	240	251	400	350	376	515	510	512	595	550	572
9	265	250	260	420	360	398	520	510	515	595	555	571
10	260	220	239	415	375	394	805	510	616	2470	550	939
11	260	245	254	405	395	403	735	520	563	1620	720	983
12	245	200	215	440	405	419	520	500	513	730	445	533
13	205	190	197	445	420	432	645	505	546	475	440	453
14	210	185	196	430	415	420	535	510	520	475	465	472
15	215	185	198	430	415	421	545	510	520	500	475	490
16	220	200	208	435	430	434	540	515	527	510	500	508
17	225	205	215	455	440	446	525	505	518	570	510	526
18	225	210	217	475	455	469	520	505	513	570	530	541
19	225	195	208	495	460	480	510	490	501	615	550	578
20	215	195	204	515	485	498	495	480	490	645	570	602
21	220	200	209	535	510	522	515	490	497	720	605	644
22	230	215	220	550	515	526	525	490	506	665	555	582
23	240	220	229	535	515	528	2120	505	593	570	560	566
24	235	210	221	560	530	541	2900	605	958	580	535	559
25	230	205	217	580	550	562	925	585	702	565	535	546
26	240	210	225	580	535	553	770	520	609	540	530	534
27	235	215	225	555	540	543	570	490	509	535	520	528
28	240	220	230	560	535	548	500	490	497	540	520	531
29	250	230	238	550	520	537	550	495	515	540	520	528
30	275	255	262	580	540	560	545	525	533	540	520	528
31	---	---	---	600	555	583	540	525	530	---	---	---
MONTH	360	185	245	600	265	445	2900	480	553	2470	440	573
YEAR	2900	185	463									

SAN JUAN RIVER BASIN
09368000 SAN JUAN RIVER AT SHIPROCK, NM --- Continued
WATER-QUALITY RECORDS

523

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	ONCE-DAILY											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	8.5	4.0	3.0	5.0	6.0	---	11.0	10.5	18.0	22.0	17.0
2	18.0	---	4.0	2.5	5.0	6.0	6.0	11.0	14.0	17.0	22.0	16.0
3	17.0	---	5.0	4.0	5.0	7.0	9.0	10.0	14.0	18.0	22.0	16.0
4	17.0	8.5	5.5	3.5	5.0	---	11.0	11.0	11.5	18.0	23.5	16.0
5	---	8.5	5.5	---	5.5	---	10.0	13.0	14.0	15.0	22.0	16.0
6	---	8.5	5.5	4.0	6.0	---	9.0	13.0	13.0	19.0	24.0	17.0
7	---	8.5	---	7.0	5.5	---	12.0	12.0	11.0	19.0	22.0	16.0
8	---	8.5	6.0	5.0	---	---	11.0	13.0	14.0	19.0	24.0	19.0
9	17.0	8.5	5.5	5.5	---	8.0	11.5	13.0	14.0	20.0	25.0	19.0
10	16.0	8.5	6.0	5.0	---	8.0	11.0	10.0	15.0	18.0	21.0	16.0
11	17.0	8.0	---	5.0	---	---	10.0	8.0	13.0	21.0	24.0	15.0
12	16.0	8.0	5.5	---	5.5	6.0	10.5	9.0	14.0	21.0	24.0	15.0
13	16.5	7.0	4.5	---	5.0	8.0	11.0	11.0	14.0	18.5	21.0	16.0
14	---	7.0	4.5	---	6.0	---	10.0	13.0	13.0	18.5	22.0	16.0
15	15.5	7.0	---	---	6.0	---	9.0	11.0	10.5	19.5	26.0	16.0
16	14.5	---	4.0	---	---	6.0	10.0	10.0	13.0	21.0	21.0	17.0
17	14.0	6.0	4.5	---	7.0	7.0	9.5	11.5	14.0	21.0	26.0	15.0
18	15.0	7.5	4.0	5.0	8.0	7.0	11.0	13.0	16.0	22.0	19.0	16.0
19	15.0	7.0	4.0	5.0	8.0	---	10.0	15.0	15.0	22.0	23.0	19.0
20	14.0	6.0	4.5	5.0	7.5	---	---	13.5	14.0	20.0	21.0	19.0
21	15.0	5.0	---	5.0	6.0	7.0	---	14.0	14.0	21.0	16.0	18.0
22	12.0	---	---	4.5	---	7.0	---	14.0	15.0	22.0	18.0	19.0
23	11.0	1.0	---	4.5	---	7.5	---	12.0	17.0	21.0	22.0	16.0
24	13.0	2.0	---	4.5	6.0	7.0	---	13.5	15.0	21.0	18.0	16.0
25	13.0	5.0	---	5.0	---	6.5	---	12.0	16.0	25.0	18.0	16.0
26	---	5.0	---	5.0	7.0	7.0	---	9.0	19.0	22.0	18.5	14.0
27	14.0	4.5	---	5.0	8.0	7.0	---	12.0	17.0	23.0	18.0	15.0
28	13.5	4.0	---	5.0	8.0	7.0	---	13.0	17.0	23.0	18.0	16.0
29	12.0	8.0	4.5	4.5	8.0	7.0	---	15.0	19.0	23.0	19.0	17.0
30	9.0	3.0	3.0	4.5	---	7.0	---	15.0	19.0	21.0	20.0	14.0
31	9.0	---	3.0	5.0	---	---	---	14.5	---	22.0	18.0	---
MEAN	14.5	6.5	4.5	4.5	6.5	7.0	10.0	12.0	14.5	20.5	21.0	16.5
WTR YR 1980	MEAN 12.5 MAX 26.0 MIN 1.0											

TEMPERATURE, WATER (DEG. C), RECORDER MAXIMUM, AND MEAN, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	3.5	1.0	2.0	3.0	2.5	3.0
2	---	---	---	---	---	---	4.0	1.5	3.0	3.0	2.5	2.5
3	---	---	---	---	---	---	5.0	3.0	4.0	3.5	2.5	3.0
4	---	---	---	---	---	---	5.5	3.5	4.5	3.5	3.0	3.0
5	---	---	---	---	---	---	6.0	3.5	4.5	3.0	2.5	2.5
6	---	---	---	---	---	---	5.5	3.5	4.5	4.0	2.5	3.0
7	---	---	---	---	---	---	6.0	3.5	4.5	4.0	2.5	3.5
8	---	---	---	---	---	---	6.0	4.0	5.0	5.5	3.5	4.5
9	---	---	---	---	---	---	6.5	4.0	5.5	5.5	4.5	5.0
10	---	---	---	---	---	---	6.5	4.0	5.0	5.5	5.0	5.5
11	---	---	---	---	---	---	6.0	4.5	5.0	5.5	5.0	5.0
12	---	---	---	---	---	---	5.5	3.5	4.5	5.5	4.5	5.0
13	---	---	---	---	---	---	4.5	3.0	4.0	7.5	5.0	6.5
14	---	---	---	---	---	---	4.5	2.0	3.0	7.5	7.0	7.5
15	---	---	---	---	---	---	4.0	2.0	3.0	7.5	6.5	7.0
16	---	---	---	---	---	---	4.0	2.0	3.0	7.0	5.5	6.0
17	---	---	---	---	---	---	4.5	2.5	3.5	6.0	5.0	5.5
18	---	---	---	---	---	---	4.5	2.5	3.5	6.5	5.5	6.0
19	---	---	---	---	---	---	4.0	2.0	3.0	6.0	5.0	5.5
20	---	---	---	---	---	---	4.5	2.5	3.5	6.0	4.5	5.0
21	---	---	---	---	---	---	5.5	4.0	5.0	4.5	4.0	4.5
22	---	---	---	---	---	---	6.0	5.0	5.0	5.0	4.0	4.5
23	---	---	---	---	---	---	5.0	3.5	4.5	4.5	3.0	4.0
24	---	---	---	---	---	---	4.0	3.0	3.5	4.5	2.5	3.5
25	---	---	---	---	---	---	4.5	2.5	3.5	5.0	2.5	3.5
26	---	---	---	---	---	---	5.0	4.5	4.5	6.0	3.5	4.5
27	---	---	---	---	---	---	5.0	4.5	5.0	6.5	4.0	5.0
28	3.0	1.5	2.5	---	---	---	5.5	4.0	4.5	5.5	5.0	5.0
29	3.0	.0	1.5	---	---	---	5.0	4.0	4.5	5.0	4.5	5.0
30	3.0	.5	1.5	---	---	---	4.0	3.0	3.5	6.0	4.5	5.0
31	---	---	---	---	---	---	3.0	2.5	2.5	6.0	4.0	5.0
MONTH	3.0	.0	2.0	---	---	---	6.5	1.0	4.0	7.5	2.5	4.5

SAN JUAN RIVER BASIN
09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued
WATER-QUALITY RECORDS

TEMPERATURE, WATER (DEG. C), RECORDER MAXIMUM, AND MEAN, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.0	3.5	4.5	8.0	6.0	7.0	---	---	---	12.0	10.0	11.0
2	6.0	3.5	5.0	8.0	6.0	6.5	---	---	---	12.0	9.5	10.5
3	7.0	4.0	5.5	---	---	---	---	---	---	13.5	10.5	12.0
4	7.5	4.5	6.0	7.0	5.5	6.5	---	---	---	14.0	11.5	13.0
5	7.0	4.5	5.5	7.5	5.5	6.5	---	---	---	13.5	11.5	12.5
6	6.0	4.5	5.5	7.0	5.0	6.0	---	---	---	13.0	11.5	12.5
7	6.0	4.5	5.5	6.5	4.0	5.5	---	---	---	12.5	11.5	12.0
8	6.0	4.0	5.0	8.0	4.5	6.0	---	---	---	12.5	11.0	11.5
9	6.5	4.0	5.0	8.0	5.0	6.5	---	---	---	12.0	11.0	11.5
10	6.0	3.0	4.5	7.0	6.0	6.5	---	---	---	11.0	10.0	10.5
11	6.0	3.0	4.0	7.5	5.5	6.5	---	---	---	10.5	10.0	10.5
12	6.5	3.0	4.5	8.0	5.0	6.5	---	---	---	10.5	8.0	9.0
13	6.5	4.0	5.5	9.5	6.0	7.5	---	---	---	11.5	9.0	10.5
14	7.0	6.0	6.5	9.5	7.0	8.0	---	---	---	13.0	11.0	12.0
15	7.5	6.0	7.0	8.0	5.5	7.0	---	---	---	12.5	11.0	11.5
16	8.0	6.5	7.0	7.0	3.5	5.5	---	---	---	13.5	10.0	11.5
17	7.5	6.5	7.0	8.5	5.0	7.0	---	---	---	15.0	11.5	13.0
18	8.5	6.0	7.0	9.0	7.0	8.0	---	---	---	15.5	12.5	14.0
19	8.0	6.5	7.5	9.0	6.0	7.5	---	---	---	16.0	12.5	14.5
20	7.5	6.0	7.0	10.0	6.5	8.0	---	---	---	16.5	13.0	14.5
21	6.0	5.0	5.5	8.0	6.0	7.5	---	---	---	17.0	13.5	15.0
22	6.5	5.0	6.0	7.5	5.5	6.5	---	---	---	16.0	14.0	15.0
23	7.0	5.0	6.0	7.5	5.5	6.5	---	---	---	14.5	12.0	13.0
24	7.0	4.5	6.0	7.5	6.0	6.5	---	---	---	13.0	11.0	12.0
25	7.5	4.5	6.0	7.0	5.0	6.0	---	---	---	11.5	9.5	10.5
26	7.5	5.0	6.5	9.5	6.0	7.5	---	---	---	12.0	9.5	11.0
27	8.5	5.5	7.0	8.0	5.0	7.0	---	---	---	13.0	11.0	11.5
28	8.5	6.0	7.5	7.5	3.5	5.5	---	---	---	14.0	11.0	12.5
29	9.0	6.5	7.5	9.5	5.0	7.0	12.5	11.0	12.0	14.5	11.5	13.0
30	---	---	---	6.5	5.0	6.0	12.0	9.5	11.0	14.0	12.0	13.0
31	---	---	---	---	---	---	---	---	---	14.0	11.5	13.0
MONTH DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	13.5	11.5	12.5	19.5	18.0	19.0	26.5	21.5	24.0	21.0	16.0	18.0
2	13.0	11.0	12.0	21.0	17.5	19.0	25.0	21.5	23.0	21.0	16.0	18.5
3	14.5	12.0	13.0	20.5	17.5	19.0	25.5	21.0	23.0	21.0	16.0	18.5
4	14.5	12.5	13.5	22.0	17.5	19.5	24.5	20.5	22.5	21.0	15.5	18.5
5	14.5	12.5	14.0	22.0	17.5	19.5	25.5	20.5	23.0	20.0	16.5	18.5
6	14.0	12.0	13.0	22.0	17.5	19.5	26.0	21.0	23.5	20.5	17.0	18.5
7	13.5	11.5	12.5	21.5	18.5	19.5	26.5	21.5	24.0	20.0	16.5	18.5
8	14.5	12.0	13.5	22.5	18.5	20.5	25.0	21.5	23.0	19.5	17.5	18.5
9	15.5	13.5	15.0	23.0	19.5	21.0	25.5	20.5	23.0	19.0	17.5	18.5
10	16.0	13.5	15.0	22.0	20.5	21.5	24.5	19.5	22.0	18.0	13.0	16.0
11	16.0	13.0	14.5	25.0	20.0	22.0	24.5	19.0	21.5	17.5	15.0	16.0
12	15.0	12.5	14.0	24.0	21.0	22.5	25.0	19.5	22.0	18.0	15.5	16.5
13	15.0	12.5	14.0	22.0	20.0	21.0	24.0	20.0	22.0	17.5	15.5	16.5
14	15.0	12.5	14.0	23.5	18.5	21.0	22.0	19.5	20.5	19.0	15.0	16.5
15	14.5	12.0	13.5	24.0	19.5	21.5	22.0	18.0	20.0	20.0	16.0	17.5
16	14.5	12.5	13.5	24.0	19.0	21.5	22.5	17.5	20.0	20.0	16.5	18.0
17	15.5	13.5	14.5	24.5	19.0	22.0	22.5	17.5	20.0	19.0	15.0	17.0
18	16.0	14.0	15.5	25.5	20.0	22.5	21.5	17.5	19.5	19.0	14.5	16.5
19	16.0	14.0	15.5	25.0	20.5	22.5	22.0	17.5	19.5	19.5	15.5	17.0
20	16.0	14.0	15.0	25.5	20.0	22.5	21.0	16.5	18.5	20.0	15.5	17.5
21	16.0	14.0	15.0	26.5	20.5	23.0	21.0	15.0	18.0	18.5	15.0	16.5
22	17.0	14.5	16.0	26.5	20.5	23.5	20.5	15.5	18.5	18.0	13.5	15.5
23	17.0	15.0	16.0	26.5	21.0	23.5	20.0	17.5	18.5	17.5	13.0	15.5
24	17.5	15.5	16.5	26.5	21.5	24.0	19.0	18.0	18.0	17.0	12.5	14.5
25	17.5	15.5	16.5	27.0	21.5	23.5	20.5	16.5	18.5	17.0	12.0	14.5
26	19.0	16.5	17.5	25.5	21.0	23.0	21.5	17.5	19.5	17.5	13.5	15.5
27	19.0	17.0	17.5	25.5	20.5	23.0	22.0	18.0	20.0	19.0	14.5	17.0
28	19.0	16.5	17.5	26.0	20.0	23.0	22.0	18.0	20.0	19.0	14.5	17.0
29	20.0	16.5	18.0	25.5	21.0	23.0	21.0	17.5	19.5	18.5	14.0	16.0
30	21.0	17.5	19.0	27.0	21.5	24.0	20.0	17.0	18.5	18.0	13.5	15.5
31	---	---	---	26.5	21.5	24.0	20.5	15.5	18.0	---	---	---
MONTH YEAR	21.0	11.0	15.0	27.0	17.5	22.0	26.5	15.0	20.5	21.0	12.0	17.0

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

DAY	MEAN CONCENTRATION (MG/L) (T/DAY)		MEAN CONCENTRATION (MG/L) (T/DAY)		MEAN CONCENTRATION (MG/L) (T/DAY)		MEAN CONCENTRATION (MG/L) (T/DAY)		MEAN CONCENTRATION (MG/L) (T/DAY)		MEAN CONCENTRATION (MG/L) (T/DAY)	
	LOADS (T/DAY)	OCTOBER	LOADS (T/DAY)	NOVEMBER	LOADS (T/DAY)	DECEMBER	LOADS (T/DAY)	JANUARY	LOADS (T/DAY)	FEBRUARY	LOADS (T/DAY)	MARCH
1	383	1140	167	455	1450	7440	1720	9470	4390	25800	2730	20000
2	322	965	300	753	1370	7770	555	3070	4700	26900	2240	16100
3	293	846	500	1220	828	4740	1260	7040	1860	10400	1700	12200
4	169	488	1030	2490	1040	5670	2120	11700	1400	7820	1600	11400
5	163	467	256	623	4640	25400	2440	13400	1800	9770	1500	10600
6	263	824	214	530	4110	22700	2830	15300	1510	7990	1470	10200
7	225	686	323	846	1930	10500	925	4970	1010	5430	1430	9810
8	194	500	1400	4120	575	3150	1350	7330	900	4930	2680	19300
9	173	337	5970	19700	1390	7770	750	4090	795	4380	3670	26600
10	122	167	3610	10100	775	4370	1000	5670	690	3800	1890	13800
11	131	157	3160	7280	470	2660	1810	10300	550	3070	3290	29600
12	137	162	2220	3990	795	4530	1740	9820	250	1380	4260	42000
13	146	221	1480	2080	2620	14700	1410	7690	1200	6580	3460	32800
14	118	181	1100	1460	927	5380	1120	6170	348	1910	2860	26000
15	100	202	653	853	510	2880	875	5100	346	2020	2380	21500
16	283	676	350	443	560	3130	693	4400	9070	65900	1960	18200
17	343	780	237	280	1240	7000	548	3330	15100	114000	2800	26300
18	229	483	190	215	775	4370	408	2390	7700	53400	2570	23900
19	270	523	94	101	435	2450	6800	40400	7310	55200	1360	12800
20	855	1810	80	86	3200	18200	1350	8460	16000	164000	1710	16100
21	3060	14200	67	67	3880	22000	6670	43200	15000	143000	2430	23300
22	8660	38600	73	75	2830	16400	3050	18400	13100	115000	2170	21900
23	3770	13900	90	131	2110	12100	4120	24400	7170	53000	1890	19300
24	1600	5440	150	222	1640	9120	1850	10700	4920	34700	1950	19800
25	3440	10200	266	396	1380	7560	950	5410	3750	24000	2420	22500
26	1500	4820	987	1570	1430	7840	1390	7770	5700	38800	2070	17300
27	443	1340	1850	3780	1800	10600	1350	7690	6000	42400	1020	7710
28	255	650	1160	2950	2460	14200	1050	5900	4900	34500	979	7190
29	305	711	480	1490	3540	20400	5150	28900	2900	20900	1300	8180
30	139	331	750	3160	3580	20100	3870	23000	---	---	789	3980
31	173	450	---	---	2780	15400	8800	54200	---	---	745	3800
TOTAL	---	102257	---	71466	---	320530	---	409670	---	1080980	---	554170

SAN JUAN RIVER BASIN

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 mi² (37,810 km²), 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 fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft³/s (479 m³/s) May 29, 1979, gage height, 6.25 ft (1.905 m³/s); maximum gage height, 14.43 ft (4.398 m) Dec. 12, 1978 (backwater from ice); minimum 110 ft³/s (3.11 m³/s) Aug. 19, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6,000 ft³/s (170 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Apr. 23	1430	7,910 224	4.74 1.445	Sept. 11	1115	6,020 170	4.25 1.295
June 11	1615	*9,990 283	5.22 1.591				

Minimum daily discharge, 532 ft³/s (15.1 m³/s) Oct. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1020	900	1760	1960	2180	2810	1940	6720	6270	3760	1120	1220
2	1040	900	2020	1980	2080	2810	1500	6180	6270	3700	1100	1150
3	1040	844	2100	2000	2020	2840	1390	5840	5800	3500	1060	1100
4	1000	864	2080	2020	2040	2870	1140	5700	6090	3180	1150	1040
5	988	888	2080	2000	2000	2840	1320	5980	6570	2950	1090	1030
6	1110	875	2040	1960	1980	2800	1510	6250	6900	2660	1040	1110
7	1110	912	2020	1960	2000	2790	1980	6420	7240	2440	1020	1330
8	1020	1080	1980	1980	2020	2850	2200	6770	7250	2280	993	1200
9	760	1280	1980	2000	2040	2940	1840	6920	7210	2300	966	1210
10	694	1060	1980	2140	2040	2980	2160	6310	7980	2240	1030	1680
11	564	912	1980	2160	2040	3350	2510	5660	8680	2020	1060	4850
12	532	742	2000	2140	1980	3860	2620	5440	9230	1900	981	3940
13	564	646	1980	2140	1980	3730	2150	5010	9250	1850	931	2870
14	572	608	1980	2060	2020	3550	2050	4540	8970	1920	924	2310
15	666	608	1980	2220	2140	3470	2160	4090	8550	1860	988	2070
16	780	608	1940	2360	2540	3550	2630	4110	7660	1690	1100	1820
17	791	608	1940	2320	2880	3620	3320	3670	7060	1640	1140	1650
18	791	590	1960	2160	2680	3560	3780	3640	6680	1500	1140	1530
19	732	580	2000	2220	2660	3580	4470	3920	6900	1420	1130	1470
20	732	590	1980	2280	3860	3600	5110	4020	6790	1360	1120	1390
21	1620	608	2040	2380	3870	3640	5790	4780	6660	1280	1070	1260
22	1720	580	2080	2220	3440	3820	6660	5770	6370	1190	1100	1190
23	1250	704	2060	2100	2930	3950	7600	6840	6090	1100	1110	1170
24	1120	780	2020	1960	2700	3880	7260	7080	5980	1060	1590	1150
25	1000	802	1960	2020	2510	3650	6580	7010	6050	1080	1600	1150
26	1010	812	1960	1980	2520	3300	6050	5920	5640	1100	2060	1120
27	988	925	2140	2000	2650	3000	6020	5340	5460	1150	2030	1160
28	844	1080	2140	2040	2640	2880	6170	5130	5170	1260	1820	1150
29	791	1220	2100	2060	2740	2700	6380	5200	4870	1140	1630	1160
30	802	1520	2060	2200	---	2010	6770	5730	4240	1090	1500	1140
31	833	---	2000	2260	---	1960	---	6150	---	1080	1360	---
TOTAL	28484	25126	62340	65280	71180	99190	113060	172140	203880	58700	37953	47620
MEAN	919	838	2011	2106	2454	3200	3769	5553	6796	1894	1224	1587
MAX	1720	1520	2140	2380	3870	3950	7600	7080	9250	3760	2060	4850
MIN	532	580	1760	1960	1980	1960	1140	3640	4240	1060	924	1030
AC-FT	56500	49840	123700	129500	141200	196700	224300	341400	404400	116400	75280	94450
CAL YR 1979 TOTAL	1489476			MEAN 4081	MAX 16400	MIN 376	AC-FT 2954000					
WTR YR 1980 TOTAL	984953			MEAN 2691	MAX 9250	MIN 532	AC-FT 1954000					

SAN JUAN BASIN
09371010 SAN JUAN RIVER AT FOUR CORNERS, CO -- Continued
WATER-QUALITY RECORDS

527

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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 26...	1200	985	892	8.3	21.5	14.0	9.1	300	140	88	18
NOV 19...	1300	557	1080	8.6	12.0	6.0	11.1	380	220	110	26
DEC 19...	1200	2010	470	8.3	9.0	3.0	11.7	160	0	48	10
JAN 24...	1200	1960	585	8.0	5.0	4.0	11.8	170	64	52	10
FEB 20...	1115	4190	630	8.3	9.0	7.0	9.8	200	36	57	14
MAR 20...	1115	3470	490	8.3	13.0	7.0	10.0	170	75	48	13
APR 08...	1230	2080	730	8.4	14.0	11.0	9.4	270	110	72	21
MAY 08...	1000	6890	730	8.4	--	16.0	--	--	--	--	--
MAY 23...	1330	6560	360	8.2	27.5	16.0	8.0	140	57	41	10
JUN 17...	1015	7170	289	7.9	28.5	15.5	8.3	110	36	32	6.6
JUL 25...	1245	1080	636	8.5	37.5	26.5	8.6	220	110	63	15
AUG 27...	1215	2020	630	8.2	31.0	21.0	7.8	220	110	65	14
SEP 26...	1245	1130	639	8.5	27.0	16.0	9.5	220	110	62	16

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 (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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 26...	75	2.0	4.1	190	0	160	290	24	.5	9.2	590
NOV 19...	88	2.0	4.1	172	10	160	350	31	.5	5.4	762
DEC 19...	33	1.1	2.1	314	0	260	130	9.6	.2	11	331
JAN 24...	53	1.8	2.5	130	0	110	130	10	.3	11	373
FEB 20...	58	1.8	2.7	200	0	160	190	14	.4	13	425
MAR 20...	33	1.1	2.2	120	0	98	130	8.8	.2	11	331
APR 08...	46	1.3	2.8	190	2	160	220	12	.3	8.4	495
MAY 08...	--	--	--	--	--	--	--	--	--	--	--
MAY 23...	17	.6	1.9	130	0	110	84	4.8	.3	7.1	226
JUN 17...	12	.5	1.4	90	0	74	61	.9	.2	6.1	174
JUL 25...	48	1.5	2.5	124	4	108	190	12	.4	3.6	421
AUG 27...	41	1.3	2.8	140	0	115	170	12	.4	9.4	403
SEP 26...	45	1.3	2.8	134	2	113	190	14	.3	7.0	425

SAN JUAN BASIN
09371010 SAN JUAN RIVER AT FOUR CORNERS, CO -- Continued
WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	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- PENDEDED (MG/L AS C) (00689)
OCT 26...	604	.87	.090	1.0	2.0	.230	250	<10	3	9.7	.4
NOV 19...	710	1.0	.040	--	--	.050	200	20	--	14	.3
DEC 19...	399	.39	.020	.55	.96	.080	160	20	--	4.1	1.1
JAN 24...	333	.78	.270	.93	2.0	.440	60	120	--	4.6	7.4
FEB 20...	448	.68	.090	6.3	7.1	1.900	60	40	--	3.5	28
MAR 20...	305	.35	.000	.90	1.3	.270	50	10	--	3.6	1.7
APR 08...	479	3.7	.730	2.7	7.1	1.200	60	18	2	6.5	8.0
MAY 08...	--	--	--	--	--	--	--	--	--	--	--
23...	218	.25	.020	1.9	2.2	.950	30	50	--	6.9	8.2
JUN 17...	165	.20	.000	.79	.99	.150	30	50	--	4.6	2.6
JUL 25...	401	.20	.090	1.7	2.0	.030	100	14	2	5.6	1.2
AUG 27...	385	.37	.000	.82	1.2	.310	90	15	5	4.7	3.6
SEP 26...	405	.13	.000	.46	.59	.060	100	.10	--	10	.5

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	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 26...	1200	0	3	1	400	80	0	<1	250	1	<1	20
APR 08...	1230	10	--	0	--	90	--	<1	60	--	<1	--
JUL 25...	1245	10	2	2	100	90	0	<1	100	0	<1	10
AUG 27...	1215	10	--	2	--	70	--	<1	90	--	<1	--

DATE	TIME	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, 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)
OCT 26...	0	7	<3	30	<10	<10	17	0	50	44	370	3	3
APR 08...	0	--	<3	--	<10	18	--	27	--	31	--	2	2
JUL 25...	10	0	3	9	12	14	9	0	40	29	50	2	2
AUG 27...	10	--	<3	--	<10	15	--	<10	--	28	--	5	5

DATE	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)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	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 26...	.1	.0	0	<10	10	0	4	4	1200	<6.0	60	9
APR 08...	--	.0	--	<10	--	0	--	3	880	<6.0	--	9
JUL 25...	.3	.2	3	0	4	2	3	3	810	<6.0	40	<3
AUG 27...	--	.0	--	<10	--	0	--	2	860	<6.0	--	<3

SAN JUAN BASIN
09371010 SAN JUAN RIVER AT FOUR CORNERS, CO -- Continued
WATER-QUALITY RECORDS

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
OCT 26...	1200	<9.7	30	4.5	20	4.2	18
APR 08...	1230	<5.6	97	4.4	63	4.5	60
JUL 25...	1245	<5.2	1.3	5.9	1.3	5.6	1.2

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. 'PER 100 ML) (31673)
OCT 26...	1200	165	1270
DEC 19...	1200	K5	K15
JAN 24...	1200	K45	K520
FEB 20...	1115	K2900	1100
MAR 20...	1115	K35	35
MAY 23...	1330	K690	2000
JUN 17...	1015	110	420
JUL 25...	1245	K14	160
SEP 26...	1245	K53	190

SAN JUAN BASIN
09371010 SAN JUAN RIVER AT FOUR CORNERS, CO -- Continued
WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	OCT 26,79	NOV 19,79	DEC 19,79	FEB 20,80	MAR 20,80	APR 8,80
TIME	1200	1300	1200	1115	1115	1230
TOTAL CELLS/ML	550	1900	1900	1500	900	2400
DIVERSITY: DIVISION	1.0	0.1	0.8	0.0	1.1	0.9
...CLASS	1.0	0.1	0.8	0.0	1.1	0.9
...ORDER	1.0	0.1	1.0	0.4	1.2	0.9
...FAMILY	1.2	1.0	2.6	2.1	1.7	2.7
...GENUS	1.6	1.0	2.7	2.6	1.8	2.9
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
...CHARACIACEAE						
...SCHROEDERIA	--	--	--	--	--	--
...CHLOROCOCCACEAE						
...CHLOROCOCCUM	--	18	1	--	--	--
...OOCYSTACEAE						
...ANKISTRODESMUS	--	--	--	--	--	--
...DICTYOSPHAERIUM	--	--	--	--	--	--
...OOCYSTIS	--	--	--	--	--	--
...SELENASTRUM	--	--	--	--	--	--
...SCENEDESMACEAE						
...SCENEDESMUS	--	--	--	--	--	--
...VOLVOCALES						
...CHLAMYDOMONADACEAE						
...CHLAMYDOMONAS	--	--	--	--	29	3
..ZYGNEMATALES						16
...DESMIDIACEAE						
...COSMARIUM	--	--	--	--	--	--
...STAUSTRUM	--	--	--	--	--	--
CHRYSOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
...COSCINODISCACEAE						
...CYCLOTELLA	--	--	27	1	14	2
...MELOSIRA	--	--	41	2	110	7
..PENNALES						
...ACHNANTHACEAE						
...COCONEIS	--	--	81	4	55	4
...RHOICOSPHEA	--	--	--	--	27	2
...CYMBELLACEAE						
...CYMBELLA	--	--	95	5	220	14
...EPITHEMIA	--	--	--	--	--	--
...RHOPALODIA	--	--	--	--	--	--
...DIATOMACEAE						
...DIATOMA	--	18	1	95	5	140
...FRAGILARIACEAE						
...FRAGILARIA	--	--	27	1	--	57
...SYNEDRA	--	--	41	2	27	2
...GOMPHONEMATACEAE						
...GOMPHONEMA	--	--	14	1	--	14
...NAVICULACEAE						
...AMPHIPLEURA	--	--	--	--	27	2
...CALONEIS	--	--	--	--	27	2
...GYROSIGMA	--	--	--	--	55	4
...NAVICULA	180#	32	1200#	66	740#	48
...PLEUROSIGMA	--	--	14	1	--	--
...NITZSCHACEAE						
...NITZSCHIA	41	7	590#	32	55	4
...SURIPELLACEAE					110	13
...SURIPELLA	--	--	81	4	55	4
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...CHROOCOCCALES						
...CHROOCOCCACEAE						
...AGMENELLUM	--	--	--	--	--	--
...ANACYSTIS	--	--	--	--	--	--
...HORMOGONALES						
...OSCILLATORIACEAE						
...LYNGBYA	270#	50	--	--	570#	63
...OSCILLATORIA	55	10	--	--	--	--
...SCHIZOTHRIX	--	--	450#	24	--	--
..EUGLENOPHYCEAE						
...EUGLENALES						
...EUGLENACEAE						
...EUGLENA	--	--	--	--	--	--
PYRRHOPHYTA (FIRE ALGAE)						
..DINOPHYCEAE						
...PERIDINIALES						
...GLENODINIACEAE						
...GLENODINIUM	--	--	--	--	--	--

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 1979 TO SEPTEMBER 1980

IDENTIFICATION OF PHYTOPLANKTON										
DATE	MAY 23,80		JUN 17,80		JUL 25,80		AUG 27,80		SEP 26,80	
TIME	1330		1015		1245		1215		1245	
TOTAL CELLS/ML	860		90		1900		2300		1500	
DIVERSITY: DIVISION	1.3		0.6		1.3		1.3		1.2	
..CLASS	1.3		0.6		1.3		1.3		1.2	
..ORDER	1.3		1.1		1.7		1.7		1.6	
...FAMILY	1.3		2.1		2.8		2.8		2.0	
....GENUS	1.3		2.1		2.8		3.0		2.1	
ORGANISM	CELLS	PER-	CELLS	PER-	CELLS	PER-	CELLS	PER-	CELLS	PER-
	/ML	CENT	/ML	CENT	/ML	CENT	/ML	CENT	/ML	CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
....CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	13	1	--	-	--	-
...CHLOROCOCCACEAE										
....CHLOROCOCCUM	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	13	1	13	1	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	100	7
...OOCYSTIS	--	-	--	-	51	3	--	-	--	-
....SELENASTRUM	--	-	--	-	13	1	--	-	--	-
...SCENEDESMACEAE										
....SCENEDESMUS	290#	33	--	-	150	8	150	7	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	13	14	90	5	--	-	26	2
..ZYGNEMATALES										
....DESMIDIACEAE										
....COSMARIUM	--	-	--	-	13	1	--	-	--	-
....STAUSTRUM	--	-	--	-	--	-	--	-	13	1
CHRYSTOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
....COSCINODISCEAE										
....CYCLOTELLA	--	-	13	14	64	3	--	-	13	1
....MELOSIRA	--	-	--	-	--	-	64	3	26	2
..PENNALES										
...ACHNANTHACEAE										
....COCCONEIS	--	-	--	-	--	-	--	-	13	1
....RHOICOSPHEA	--	-	--	-	--	-	--	-	13	1
...CYMBELLACEAE										
....CYMBELLA	--	-	--	-	100	6	--	-	--	-
....EPITHEMIA	--	-	--	-	--	-	100	5	--	-
....RHODALDIA	--	-	--	-	--	-	--	-	--	-
...DIATOMACEAE										
....DIATOMA	--	-	39#	43	--	-	51	2	--	-
...FRAGILARIACEAE										
....FRAGILARIA	--	-	--	-	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	180	10	64	3	13	1
...GOMPHONEMACEAE										
....GOMPHONEMA	72	8	13	14	--	-	--	-	26	2
...NAVICULACEAE										
....AMPHIPLEURA	--	-	--	-	--	-	--	-	--	-
....CALONEIS	--	-	--	-	--	-	--	-	--	-
....GYROSIGMA	--	-	--	-	--	-	--	-	--	-
....NAVICULA	--	-	--	-	77	4	420#	19	180	12
....PLEUROSIGMA	--	-	--	-	--	-	--	-	--	-
...NITZSCHACEAE										
....NITZSCHIA	--	-	13	14	710#	38	640#	28	120	7
...SURIRELLACEAE										
....SURIRELLA	--	-	--	-	13	1	39	2	13	1
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROOCOCCALES										
....CHROOCOCCACEAE										
....AGMENELLUM	--	-	--	-	--	-	100	5	--	-
....ANACYSTIS	--	-	--	-	--	-	--	-	26	2
...HORMOGONALES										
...OSCILLATORACEAE										
....LYNGBYA	--	-	--	-	--	-	360#	16	--	-
....OSCILLATORIA	500#	58	--	-	360#	19	230	10	970#	63
....SCHIZOTHRIX	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
....EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	13	1	--	-
PYRRHOPHYTA (FIRE ALGAE)										
..DINOPHYCEAE										
...PERIDINIALES										
....GLENODINIACEAE										
....GLENODINIUM	--	-	--	-	--	-	13	1	--	-

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

SAN JUAN BASIN
09371010 SAN JUAN RIVER AT FOUR CORNERS, CO -- Continued
WATER-QUALITY RECORDS

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	PERIPHYTON						SAMPLING METHOD
		LENGTH OF EXPOSURE (DAYS)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00022)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M (00573)	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)	
NOV 19...	1300	23	23.5	22.8	3.58	.160	196	Polyethylene strip
MAY 08...	1000	29	.236	.079	.000	.000	--	"
SEP 26...	1245	29	4.25	3.07	1.90	.420	621	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE, WATER (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. FALL DIAM. % FINER THAN .500 MM (70345)
OCT 03...	1215	1040	18.0	243	--	--	--	--	--	--	--
26...	1200	985	14.0	941	69	73	81	91	96	97	100
NOV 19...	1300	557	6.0	132	--	--	--	--	--	--	--
DEC 19...	1200	2010	3.0	1780	--	--	--	--	--	--	--
JAN 24...	1200	1960	4.0	7980	--	--	--	--	--	--	--
FEB 20...	1115	4190	7.0	6770	--	--	--	--	--	--	--
MAR 20...	1115	3470	7.0	1580	--	--	--	--	--	--	--
APR 08...	1230	2080	11.0	3060	42	51	74	86	92	95	100
22...	1200	6290	11.0	5940	--	--	--	--	--	--	--
MAY 08...	1000	6890	16.0	2890	--	--	--	--	--	--	--
23...	1330	6560	16.0	4090	--	--	--	--	--	--	--
JUN 03...	1115	5880	16.0	1720	--	--	--	--	--	--	--
17...	1015	7170	15.5	1340	--	--	--	--	--	--	--
JUL 02...	1100	3990	21.0	310	--	--	--	--	--	--	--
25...	1245	1080	26.5	47	--	--	--	--	--	--	--
AUG 05...	1215	1070	25.0	62	--	--	--	--	--	--	--
27...	1215	2020	21.0	691	--	--	--	--	--	--	--
SEP 01...	1130	1240	19.0	98	--	--	--	--	--	--	--
26...	1245	1130	16.0	92	--	--	--	--	--	--	--

[illegible]

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 mi² (60,000 km²), 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 km²) 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.--66 years, 2,556 ft³/s (72.39 m³/s), 1,852,000 acre-ft/yr (2.28 km³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD (1914-17 AND SINCE 1927).--Maximum discharge, 70,000 ft³/s (1,980 m³/s) Sept. 10, 1927, gage height, 32.0 ft (9.75 m) from rating curve extended above 31,000 ft³/s (787 m³/s) and slope-area measurement at gage height 26.62 ft (8.114 m); no flow July 3-13, 1934, Aug. 24-27, 29, 1939.

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.--Peak discharges above base of 8,000 ft³/s (227 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 20	1230	*13,000 368	12.01 3.661	May 9	1645	8,460 240	9.56 2.914
Apr. 24	1000	9,650 273	10.26 3.127	June 13	1045	9,480 268	10.16 3.097

Minimum discharge, 481 ft³/s (13.6 m³/s) Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1110	895	1580	2110	2420	3120	2520	7890	5860	3660	1090	1420
2	1080	950	1820	2080	2280	3140	2400	7280	6020	3550	1120	1370
3	1070	948	1980	2110	2190	3040	2180	6650	5860	3570	1120	1310
4	1080	899	1990	2110	2170	3170	2080	6300	5640	3270	1070	1250
5	1070	904	2020	2110	2170	3240	2150	6400	5930	3020	1130	1200
6	1030	934	2020	2070	2160	3260	2760	6870	6460	2870	1100	1190
7	1140	919	2040	2060	2150	3240	3500	7340	7080	2600	1050	1290
8	1150	985	2010	2050	2170	3250	3540	7820	7410	2480	1020	1540
9	1090	1310	2010	2090	2190	3260	3090	8270	6950	2300	1000	1430
10	860	1470	2030	2770	2160	3180	3250	7800	7030	2390	1010	1830
11	785	1210	2030	2520	2140	3250	3770	6600	8020	2300	1090	3460
12	624	1050	2020	2590	2150	4020	3790	6320	8680	2120	1150	4670
13	550	863	2010	2520	2100	4010	3310	5990	9180	2050	1060	3360
14	563	740	1990	2410	2290	3740	2960	5210	8890	2010	1010	2590
15	608	684	2000	2770	4060	3640	3090	4670	8340	2050	1050	2240
16	616	669	1990	2710	3140	3810	3420	4420	7680	1990	1090	2060
17	776	672	1950	2780	3400	3990	3890	4650	6800	1910	1170	2000
18	853	667	1990	2870	3640	3770	4320	4160	6190	1890	1180	1750
19	836	657	2020	2970	4370	3700	4810	4230	6040	1610	1180	1600
20	810	697	2050	3130	8580	3970	5560	4370	6020	1440	1140	1570
21	1430	667	2050	2630	7150	4170	6520	4540	6060	1370	1130	1550
22	2440	677	2110	2600	8300	4500	7840	5210	5740	1330	1080	1540
23	1860	639	2130	2320	4990	4640	9150	6350	5470	1240	1090	1600
24	1300	701	2110	2220	3790	4270	9400	7260	5230	1150	1100	1510
25	1130	867	2060	2200	3300	4200	8500	7470	5100	1080	1540	1440
26	1020	918	2070	2160	2910	4010	7560	6540	5000	1090	1630	1440
27	1040	911	2330	2140	3000	3610	6820	5380	4710	1100	2040	1430
28	1020	1020	2350	2160	3030	3420	6730	4880	4600	1170	1900	1420
29	934	1140	2280	2290	3090	3380	7010	4760	4410	1240	1760	1230
30	1000	1270	2190	3010	---	2910	7550	5120	4050	1160	1590	1230
31	862	---	2140	2470	---	2540	---	5590	---	1100	1500	---
TOTAL	31737	26933	63370	75030	97490	111450	143470	186340	190450	62110	38190	53520
MEAN	1024	898	2044	2420	3362	3595	4782	6011	6348	2004	1232	1784
MAX	2440	1470	2350	3130	8580	4640	9400	8270	9180	3660	2040	4670
MIN	550	639	1580	2050	2100	2540	2080	4160	4050	1080	1000	1190
AC-FT	62950	53420	125700	148800	193400	221100	284600	369600	377800	123200	75750	106200
CAL YR 1979	TOTAL	1569042	MEAN	4299	MAX	15200	MIN	394	AC-FT	3112000		
WTR YR 1980	TOTAL	1080090	MEAN	2951	MAX	9400	MIN	550	AC-FT	2142000		

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 mi² (185 km²).

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.--11 years, 6.72 ft³/s (0.190 m³/s), 4,870 acre-ft/yr (6.00 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 782 ft³/s (22.1 m³/s) Apr. 14, 1973, gage height, 5.58 ft (1.701 m), from rating curve extended above 470 ft³/s (13.3 m³/s); no flow Oct. 1-20, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 30 ft³/s (0.85 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
Jan. 15	0030	124	3.51	3.77	1.149	Apr. 10	1900	*506	14.3	5.09	1.551
Feb. 20	0045	190	5.38	4.09	1.247						

Minimum discharge, 0.04 ft³/s (0.001 m³/s) at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.04	.07	.12	7.6	60	50	27	1.9	.05	.07	.05
2	.04	.04	.07	.15	6.3	86	43	22	1.8	.05	.06	.06
3	.04	.04	.07	.16	5.7	99	74	20	1.7	.05	.06	.05
4	.04	.04	.07	.14	6.3	66	98	19	1.3	.05	.06	.05
5	.04	.04	.07	.13	6.0	60	172	17	1.1	.05	.06	.05
6	.04	.04	.07	.14	4.8	71	255	18	1.0	.04	.06	.07
7	.04	.05	.08	.15	5.3	70	290	23	.92	.04	.06	.14
8	.04	1.7	.09	.15	3.1	53	273	34	.82	.04	.06	.09
9	.04	1.4	.09	.14	2.4	51	289	16	.72	.04	.06	.07
10	.04	.19	.10	.23	1.6	49	342	11	.72	.05	.06	.07
11	.04	.10	.10	.29	1.5	50	287	8.9	.50	.05	.06	.07
12	.04	.08	.10	.40	1.3	47	180	7.7	.45	.06	.06	.07
13	.04	.08	.10	3.7	1.2	43	175	7.2	.40	.06	.06	.07
14	.04	.07	.08	30	3.2	67	208	7.4	.35	.05	.06	.07
15	.04	.06	.08	44	22	89	286	7.9	.31	.05	.06	.06
16	.04	.05	.08	14	22	79	298	7.9	.31	.05	.06	.06
17	.04	.06	.08	8.2	16	62	253	7.3	.24	.05	.06	.06
18	.04	.07	.08	5.6	48	71	218	6.9	.21	.05	.06	.06
19	.04	.08	.08	4.7	105	75	184	6.1	.21	.05	.06	.06
20	.05	.10	.08	5.0	103	81	144	5.4	.18	.05	.06	.06
21	.58	.08	.09	5.0	42	122	122	4.9	.15	.06	.05	.06
22	.06	.07	.09	3.0	33	143	124	4.5	.12	.06	.05	.06
23	.04	.06	.08	1.0	28	104	73	3.9	.10	.06	.06	.06
24	.04	.08	.09	.78	25	88	67	3.2	.09	.06	.10	.06
25	.04	.08	.09	.63	26	87	74	2.7	.08	.05	.08	.06
26	.04	.09	.15	.60	33	67	51	2.5	.06	.05	.06	.06
27	.04	.09	.19	.50	46	64	42	2.4	.06	.05	.06	.06
28	.04	.08	.20	.44	60	54	37	2.4	.05	.06	.06	1.3
29	.04	.08	.15	.39	67	48	34	2.3	.05	.06	.06	.12
30	.04	.08	.14	1.3	---	48	30	2.2	.05	.07	.06	.07
31	.04	---	.12	5.6	---	53	---	2.1	---	.07	.06	---
TOTAL	1.81	5.12	3.03	136.64	732.3	2207	4773	312.8	15.95	1.63	1.91	3.25
MEAN	.058	.17	.098	4.41	25.3	71.2	159	10.1	.53	.053	.062	.11
MAX	.58	1.7	.20	.44	105	143	342	34	1.9	.07	.10	1.3
MIN	.04	.04	.07	.12	1.2	43	30	2.1	.05	.04	.05	.05
AC-FT	3.6	10	6.0	271	1450	4380	9470	620	32	3.2	3.8	6.4
CAL YR 1979	TOTAL	6555.79	MEAN 18.0	MAX 389	MIN .03	AC-FT 13000						
WTR YR 1980	TOTAL	8194.44	MEAN 22.4	MAX 342	MIN .04	AC-FT 16250						

LITTLE COLORADO RIVER BASIN
09386900 RIO NUTRIA NEAR RAMAH, NM
WATER-QUALITY RECORDS

PERIOD OF RECORD--February 1980.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	
FEB 22...	1300	31	224	8.0	2.0	110	11	29	7.9	
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- LINTY (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)
FEB 22...	4.3	.2	1.1	94	16	3.1	.3	9.4	144	
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, ORTHOPH OSPHATE DISSOL. (MG/L AS P) (00671)	
FEB 22...	128	.02	.01	.030	.66	.71	.060	.070		

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 mi² (2,100 km²), approximately.

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.--Records good except those for winter periods, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years, 14.0 ft³/s (0.396 m³/s), 10,140 acre-ft/yr (12.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,200 ft³/s (147 m³/s) Aug. 4, 1974, gage height, 6.61 ft (2.015 m), from rating curve extended above 670 ft³/s (19.0 m³/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 100 ft³/s (2.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 18	1930	738 20.9	4.48 1.366	Apr. 11	1945	*996 28.2	4.70 1.433

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	1.1	.44	1.1	5.2	138	102	24	1.7	.00	.01	25
2	.00	.99	.43	1.3	3.3	162	94	13	1.5	.00	.00	25
3	.00	.91	.52	1.4	2.6	165	96	9.8	1.4	.00	.00	25
4	.00	.94	.79	1.0	2.4	205	93	9.8	1.7	.00	.00	11
5	.00	.89	.91	.65	2.0	223	114	9.6	1.1	.00	.00	2.8
6	.00	.80	.91	.74	2.0	190	181	11	.36	.00	.00	.81
7	.00	1.0	.91	.96	2.1	163	388	11	.18	.00	.00	.28
8	.00	9.4	.94	1.3	1.8	157	682	13	.11	.00	.00	1.6
9	.00	5.2	.87	1.7	1.5	148	736	12	.07	24	.00	3.9
10	.00	2.9	.84	2.6	1.6	120	740	11	.06	26	.00	1.1
11	.00	1.8	.80	5.7	1.6	110	828	9.9	.04	7.0	.00	.85
12	.00	1.3	.76	9.9	1.7	102	785	7.9	.02	1.9	.00	.42
13	.00	1.1	.72	12	1.5	103	482	7.4	.00	.56	.00	.18
14	.00	1.1	.66	8.2	3.4	93	312	7.4	.00	.25	.00	.07
15	.00	.94	.68	18	101	90	269	7.6	.00	.11	.00	.04
16	.00	.84	.73	6.0	36	122	352	6.9	.00	.05	.00	.02
17	.00	.88	.76	4.2	33	150	466	6.6	.00	.01	.00	.00
18	.00	1.0	.71	4.2	155	146	454	5.8	.00	.00	.00	.00
19	.00	1.0	.71	5.6	136	126	380	6.4	.00	.00	.00	.00
20	.00	1.1	.98	6.3	406	134	321	6.9	.00	.00	.00	.00
21	11	.85	.90	4.9	370	138	248	6.3	.00	.00	.00	.00
22	3.8	.57	.86	3.3	247	142	190	5.7	.00	.00	.00	.00
23	.97	.45	.82	2.2	130	210	162	5.3	.00	.00	.00	.02
24	.75	.51	.76	2.1	80	234	137	4.4	.00	.00	.00	.04
25	22	.89	.99	2.2	50	195	113	4.5	.00	.00	.00	.09
26	6.9	1.1	1.2	2.4	60	185	100	4.2	.00	.00	.00	.06
27	2.1	1.2	1.1	2.0	80	175	86	4.0	.00	.00	.00	.04
28	1.3	.74	.90	2.3	102	146	61	4.0	.00	.00	.00	.02
29	1.2	.45	.78	2.2	111	134	47	3.2	.00	.00	3.3	.00
30	1.2	.44	.69	17	---	118	42	2.3	.00	2.2	24	.00
31	1.2	---	1.1	13	---	102	---	2.0	---	.09	25	---
TOTAL	52.42	42.39	25.17	146.45	2129.7	4626	9061	242.9	8.24	62.17	52.31	98.34
MEAN	1.69	1.41	.81	4.72	73.4	149	302	7.84	.27	2.01	1.69	3.28
MAX	22	9.4	1.2	18	406	234	828	24	1.7	26	25	25
MIN	.00	.44	.43	.65	1.5	90	42	2.0	.00	.00	.00	.00
AC-FT	104	84	50	290	4220	9180	17970	482	16	123	104	195
CAL YR 1979	TOTAL	13139.33	MEAN	36.0	MAX	727	MIN	.00	AC-FT	26060		
WTR YR 1980	TOTAL	16547.09	MEAN	45.2	MAX	828	MIN	.00	AC-FT	32820		

LITTLE COLORADO BASIN
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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (000611)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (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)
NOV 07...	0845	.88	681	8.4	6.0	230	0	59	21	65
JAN 18...	1515	3.9	828	8.0	3.0	270	1	69	24	78
FEB 22...	1400	247	310	8.0	4.5	120	13	31	11	18
26...	0925	60	287	7.8	3.0	120	11	35	8.1	17

DATE	TIME	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINEITY (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 CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
NOV 07...	1.9	5.3	250	89	15	.3	21	--	426	--	--
JAN 18...	2.1	4.7	270	140	24	.3	15	--	517	--	--
FEB 22...	.7	3.2	110	36	7.2	.3	4.9	185	178	.02	--
26...	.7	3.3	110	29	11	.2	8.8	--	180	--	--

DATE	TIME	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, ORTHOPH- OSPHATE DISSOL. (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)
NOV 07...	.00	--	--	--	--	--	--	110	--	--
JAN 18...	.02	--	--	--	--	--	--	--	50	3
FEB 22...	.02	.010	.88	.91	.020	.010	--	--	--	--
26...	.15	--	--	--	--	--	--	560	50	--

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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)
JAN 18...	1515	10	5.8	6.0

LITTLE COLORADO BASIN
09386950 ZUNI RIVER ABOVE BLACK ROCK RESERVOIR, NM
WATER-QUALITY RECORDS

539

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (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									
07...	0845	.88	6.0	25	.06	--	--	--	--
13...	1130	1.3	2.0	111	.39	--	--	--	--
DEC									
17...	1630	2.0	1.0	45	.24	--	--	--	--
JAN									
18...	1515	3.9	3.0	216	2.3	--	--	--	--
FEB									
11...	1315	2.2	2.0	121	.72	--	--	--	--
22...	1400	247	4.5	962	642	--	--	--	--
26...	0925	60	3.0	252	41	65	74	78	83
MAR									
06...	1040	195	8.5	217	114	--	--	--	--
10...	1700	126	7.0	206	70	--	--	--	--
12...	1620	106	12.0	203	58	--	--	--	--
14...	1600	94	11.0	216	55	--	--	--	--
18...	0840	157	--	441	187	--	--	--	--
24...	0830	290	4.0	427	334	--	--	--	--
28...	1500	146	13.0	1330	524	21	24	26	29
APR									
02...	1630	94	13.5	137	35	--	--	--	--
04...	1600	98	13.5	1320	349	--	--	--	--
06...	0900	162	6.5	453	198	--	--	--	--
09...	1300	771	10.5	388	808	--	--	--	--
10...	1630	782	14.5	872	1840	27	33	36	39
18...	1415	441	17.0	2090	2490	--	--	--	--
MAY									
14...	1730	7.8	16.0	27	.57	--	--	--	--
JUN									
06...	1905	.25	21.0	39	.03	--	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN (70341)	SED. SUSP. FALL DIAM. % FINER THAN (70342)	SED. SUSP. FALL DIAM. % FINER THAN (70343)	SED. SUSP. FALL DIAM. % FINER THAN (70344)	SED. SUSP. FALL DIAM. % FINER THAN (70345)	SED. SUSP. FALL DIAM. % FINER THAN (70331)	SED. SUSP. FALL DIAM. % FINER THAN (70332)	SED. SUSP. FALL DIAM. % FINER THAN (70333)
NOV								
07...	--	--	--	--	--	99	--	--
13...	--	--	--	--	--	--	--	--
DEC								
17...	--	--	--	--	--	92	--	--
JAN								
18...	--	--	--	--	--	--	--	--
FEB								
11...	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	88	--	--
26...	88	--	--	--	--	93	98	100
MAR								
06...	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--
28...	34	53	85	99	100	--	--	--
APR								
02...	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--
10...	43	54	78	99	100	--	--	--
18...	--	--	--	--	--	--	--	--
MAY								
14...	--	--	--	--	--	--	--	--
JUN								
06...	--	--	--	--	--	--	--	--

LITTLE COLORADO RIVER BASIN

09395350 PUERCO RIVER NEAR CHURCH ROCK, NM

LOCATION.--Lat 35°36'41", long 108°33'11" in SW¼SW¼, sec. 17, T. 16 N., R. 16W., McKinley County, Hydrologic Unit 15020006, on left bank at downstream side of bridge on State Highway 566, 4.4 mi (7.1 km) upstream from Hard Ground Canyon, 9.1 mi (15 km) upstream from South Fork, and 11 mi (18 km) northeast of Gallup.

DRAINAGE AREA.--193 mi² (500 km²).

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,730 ft (2,051 m) from topographic map.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 450 ft³/s (12.7 m³/s) July 16, 1979, gage height, 4.50 ft (1.372 m) from rating curve extended above 20 ft³/s (0.57 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 1.3 ft³/s (0.04 m³/s) May 19, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 137 ft³/s (3.88 m³/s) Sept. 8, gage height, 5.10 ft (1.554 m); minimum daily, 1.2 ft³/s (0.03 m³/s) Feb. 5, June 17-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	4.0	8.0	8.6	4.0	13	10	7.4	7.8	6.4	11	6.0
2	8.6	3.5	8.0	9.7	5.6	11	10	4.5	7.8	13	9.7	6.0
3	5.4	3.8	10	16	7.1	14	8.6	5.9	11	12	8.9	6.0
4	6.7	5.1	10	9.7	4.3	36	7.8	5.4	8.0	13	9.3	6.0
5	7.4	3.5	10	11	1.2	13	11	3.8	5.9	18	9.7	6.0
6	5.6	5.1	13	7.8	1.3	11	26	3.6	7.8	17	9.7	8.0
7	6.2	6.2	21	12	2.4	6.4	38	8.6	2.1	18	12	9.0
8	5.9	10	10	42	7.1	5.4	11	3.6	2.1	20	10	50
9	7.1	9.7	7.5	17	10	4.0	7.0	4.8	1.9	15	9.0	9.0
10	6.2	11	3.5	9.7	10	5.6	5.4	5.0	2.1	12	8.0	30
11	7.4	11	3.3	9.5	9.7	6.4	11	5.0	2.1	14	7.5	6.0
12	9.3	15	3.5	8.9	5.1	8.2	12	5.4	2.8	11	7.0	6.0
13	7.1	12	3.5	10	6.2	10	18	5.8	1.9	17	7.0	6.0
14	9.7	9.7	3.0	9.7	2.0	12	18	5.4	3.5	14	7.5	6.0
15	8.2	3.8	10	6.2	3.3	14	38	5.2	3.1	14	7.8	6.0
16	6.7	4.0	12	7.1	8.9	6.4	51	5.0	1.4	15	8.5	5.0
17	5.9	4.2	8.0	6.2	2.9	5.9	49	5.2	1.2	14	8.0	5.0
18	5.6	4.8	6.0	5.4	2.9	6.4	46	6.0	1.2	14	7.5	5.0
19	7.1	5.2	6.5	6.4	10	6.7	41	7.0	1.2	12	7.0	5.0
20	6.7	5.2	6.0	14	9.0	7.8	27	8.0	1.5	13	6.8	5.0
21	20	5.2	6.8	11	9.0	10	20	8.0	1.5	12	6.5	6.0
22	10	4.8	6.5	16	7.0	5.6	15	10	1.2	13	5.5	6.0
23	6.2	5.2	6.0	6.4	7.0	5.1	14	14	1.8	7.4	10	6.0
24	6.0	5.6	7.0	8.9	7.0	6.2	5.1	14	1.6	14	20	6.0
25	6.0	6.0	8.0	6.2	6.0	9.3	3.8	16	1.6	15	9.0	6.0
26	5.6	7.5	9.0	5.6	5.0	18	5.9	10	2.2	14	9.0	7.0
27	5.0	6.5	9.5	5.4	3.6	20	7.1	11	1.8	14	8.0	7.0
28	5.0	6.2	10	9.7	9.7	20	3.8	6.4	2.2	11	8.0	8.0
29	5.0	6.5	11	8.2	13	22	3.5	9.7	2.2	10	7.0	8.0
30	5.0	6.2	10	4.5	---	8.6	9.7	13	4.5	9.7	7.0	8.0
31	4.0	---	10	4.3	---	10	---	13	---	10	7.0	---
TOTAL	220.6	196.5	256.6	313.1	180.3	338.0	533.7	235.7	97.0	412.5	268.9	259.0
MEAN	7.12	6.55	8.28	10.1	6.22	10.9	17.8	7.60	3.23	13.3	8.67	8.63
MAX	20	15	21	42	13	36	51	16	11	20	20	50
MIN	4.0	3.5	3.0	4.3	1.2	4.0	3.5	3.6	1.2	6.4	5.5	5.0
AC-FT	438	390	509	621	358	670	1060	468	192	818	533	514

CAL YR 1979 TOTAL 2909.4 MEAN 7.97 MAX 92 MIN 2.5 AC-FT 5770
WTR YR 1980 TOTAL 3311.9 MEAN 9.05 MAX 51 MIN 1.2 AC-FT 6570

LITTLE COLORADO RIVER BASIN
09395350 PUERCO RIVER NEAR CHURCH ROCK, NM
WATER QUALITY RECORDS

541

PERIOD OF RECORD--July 1979.

DATA NOT PREVIOUSLY PUBLISHED

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS 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)
JUL 17...	1500	7.1	3450	3.6	28.0	1700	1700	560	75	260	2.7	13
19...	1800	8.0	2300	5.2	25.5	--	--	--	--	--	--	5.7

DATE	TIME	ALKA- LITY (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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
JUL 17...	0	2300	38	.8	41	3350	3.5	27.000	160	51000	89	
19...	--	--	--	--	--	--	--	--	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL SOLVED (UG/L AS AS) (01002)	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)
JUL 17...	1500	160000	1	0	--	160	--	--
19...	1800	--	--	0	0	--	0	10

DATE	TIME	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)	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) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)
JUL 17...	51000	1000	0	--	28	0	52	0	
19...	--	--	0	.3	--	--	--	25	

LITTLE COLORADO RIVER BASIN
09395350 PUERCO RIVER NEAR CHURCH ROCK, NM
WATER QUALITY RECORDS

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
JUL									
17...	1500	820	8000	150	1800	130	1600	1.0	300
19...	1800	<27	4100	<9.9	1100	<9.1	980	.47	4.2

CUSTOM EXTRACTION OF RADIUM AND URANIUM IN SUSPENDED SEDIMENTS AND CHANNEL BOTTOM MATERIALS

DATE	TIME	SUSPENDED SEDIMENT (MG/L) (80154)	SED SUSP. SIEVE DIAM %FINER THAN .062 MM (70331)	RADIUM 226, SUSPENDED RADON METHOD (PCI/G) (CUSTOM)	URANIUM SUSPENDED EXTRACTION, (UG/G) (CUSTOM)	RADIUM- 226 BOTTOM MATERIAL RADON METHOD (PCI/G) (CUSTOM)	URANIUM, BOTTOM MATERIAL, EXTRACTION (UG/G) (CUSTOM)
JUL							
17	1500	17,100	84	1.65	9.9	--	--
19	1759	--	--	--	--	0.29	3.1
19	1800	18,000	91	0.17	2.3	--	--
19	1801	--	--	--	--	0.10	<0.1

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 Gamarco Wash, 3.5 mi (5.6 km) downstream from Hogback, and 4.9 mi (7.9 km) downstream from South Fork.

DRAINAGE AREA.--558 mi² (1,450 km²).

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.--Records poor.

AVERAGE DISCHARGE.--8 years (water years 1941-45, 1978-80), 9.67 ft³/s (0.274 m³/s), 7,010 acre-ft/yr (8.64 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft³/s (340 m³/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, 175 ft³/s (4.96 m³/s) at 1600 hours Sept. 8, gage height, 3.44 ft (1.049 m), no peak above base of 1,000 ft³/s (28 m³/s); minimum daily, 1.0 ft³/s (0.03 m³/s) Dec. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	4.0	6.0	8.0	7.0	52	20	8.0	8.0	2.8	3.8	2.5
2	5.0	3.5	7.0	8.0	8.0	54	35	5.0	9.0	2.3	5.0	2.0
3	4.0	3.5	8.0	16	15	76	40	6.0	12	2.1	5.4	7.0
4	3.4	5.0	8.5	9.0	10	66	58	7.0	9.0	1.9	5.4	2.0
5	3.4	3.0	7.4	10	8.0	50	74	5.0	5.5	2.1	5.8	6.0
6	3.4	5.0	4.6	8.0	7.5	50	110	6.0	6.0	2.5	5.0	8.0
7	4.2	8.9	3.8	10	8.0	60	124	10	2.5	3.4	3.8	9.0
8	5.0	24	3.1	20	9.0	55	80	7.0	1.8	3.4	6.6	90
9	6.2	10	1.5	12	12	30	60	6.0	1.6	2.8	6.0	15
10	7.0	8.0	1.0	9.0	12	25	35	5.8	2.0	2.8	5.5	35
11	7.6	6.0	1.3	8.0	9.0	35	50	5.6	2.1	2.5	5.0	15
12	8.2	5.0	1.3	7.5	8.0	52	55	6.0	2.3	3.8	5.0	5.0
13	8.8	4.0	1.2	9.0	7.0	39	65	7.0	2.0	4.2	5.0	5.0
14	8.8	3.5	2.5	7.0	6.0	43	80	6.5	2.5	2.5	5.0	5.0
15	11	3.5	6.0	32	8.0	60	114	6.0	2.0	4.6	6.0	4.5
16	11	3.5	11	20	10	52	120	6.0	2.0	5.0	7.0	4.0
17	8.2	4.0	7.5	9.0	9.0	30	92	6.0	1.8	4.2	5.0	4.0
18	10	4.5	4.2	8.0	12	25	102	6.5	1.6	3.4	5.0	3.0
19	8.8	5.0	5.0	25	9.0	68	104	7.0	1.6	3.4	6.0	3.0
20	9.4	5.0	3.8	26	8.0	60	98	8.0	2.0	4.2	6.0	3.0
21	27	5.0	5.0	35	9.0	62	50	9.0	2.0	3.8	5.0	4.0
22	13	4.5	4.2	23	7.0	80	30	11	1.8	4.2	5.0	4.0
23	6.0	4.7	4.0	7.0	7.5	50	19	15	2.2	6.2	4.0	4.0
24	5.8	4.8	5.0	7.5	7.0	30	15	16	2.0	5.4	12	4.0
25	5.6	5.0	7.0	7.0	6.5	40	8.0	18	2.1	4.6	5.0	3.8
26	5.4	7.0	8.0	6.5	9.0	42	9.0	12	2.3	4.6	4.5	3.5
27	5.2	6.0	9.0	9.0	28	45	12	11	2.1	4.2	4.0	3.0
28	5.0	5.8	10	15	46	45	10	9.0	2.3	4.6	3.5	2.5
29	5.0	5.6	10	25	66	46	9.5	11	2.5	4.2	3.0	2.0
30	5.0	5.4	10	40	---	30	10	14	3.0	4.6	3.0	2.0
31	4.0	---	10	10	---	32	---	12	---	3.8	3.0	---
TOTAL	228.4	172.7	176.9	446.5	368.5	1484	1688.5	268.4	99.6	114.1	159.3	255.8
MEAN	7.37	5.76	5.71	14.4	12.7	47.9	56.3	8.66	3.32	3.68	5.14	8.53
MAX	27	24	11	40	66	80	124	18	12	6.2	12	90
MIN	3.4	3.0	1.0	6.5	6.0	25	8.0	5.0	1.6	1.9	3.0	2.0
AC-FT	453	343	351	886	731	2940	3350	532	198	226	316	507
CAL YR 1979	TOTAL	5479.4	MEAN 15.0	MAX 139	MIN 1.0	AC-FT 10870						
WTR YR 1980	TOTAL	5462.7	MEAN 14.9	MAX 124	MIN 1.0	AC-FT 10840						

LITTLE COLORADO RIVER BASIN
09395500 PUERCO RIVER AT GALLUP, NM
WATER-QUALITY RECORDS

PERIOD OF RECORD--Water years 1975-77, 1978 to current year.

DATA NOT PREVIOUSLY PUBLISHED

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	HARD- NESS (MG/L AS CAC03) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CAC03) (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)
JUL 17...	1300	11	8300	3.4	25.0	2800	2800	220	540	370	3.1	21
19...	1350	11	4300	7.2	29.0	--	--	--	--	--	--	22

DATE	TIME	ALKA- LINITY (MG/L AS CAC03) (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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
JUL 17...	0	6600	160	.0	180	8710	9.7	180	510	580000	260	--
19...	--	--	--	--	--	--	--	--	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ARSENIC DIS- SOLVED (UG/L AS AS) (01002)	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)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
JUL 17...	1300	700000	2	1	--	510	--	--	580000
19...	1350	--	--	0	0	--	0	10	--

DATE	TIME	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)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO) (01062)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, TOTAL SOLVED (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)
JUL 17...	500	3	--	31	0	160	120	200	--
19...	--	0	.1	--	--	--	34	--	--

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 CS-137) (03515)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80060)	RADIUM 226, DIS- SOLVED (PCI/L RADON METHOD (PCI/L) (09511)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L) (80020)
JUL 17...	1300	7600	49000	1800	9200	1700	8300	.95	3100
19...	1350	<85	17000	34	4200	31	4100	.40	81

CUSTOM EXTRACTION OF RADIUM AND URANIUM IN SUSPENDED SEDIMENTS AND CHANNEL BOTTOM MATERIALS

DATE	TIME	SUSPENDED SEDIMENT (MG/L) (80154)	SED SUSP. SIEVE DIAM %FINER THAN .062 MM (70331)	RADIUM 226, SUSPENDED RADON METHOD (PCI/G) (CUSTOM)	URANIUM SUSPENDED EXTRACTION, (UG/G) (CUSTOM)	RADIUM- 226 BOTTOM MATERIAL RADON METHOD (PCI/G) (CUSTOM)	URANIUM, BOTTOM MATERIAL, EXTRACTION (UG/G) (CUSTOM)
JUL 17	1300	29,500	99	0.72	19.4	--	--
19	1349	--	--	--	--	0.34	1.8
19	1350	70,100	99	0.09	0.65	--	--
19	1351	--	--	--	--	0.30	2.3

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 mi² (4,828 km²).
 PERIOD OF RECORD.--April to December 1914, December 1927 to current year. Monthly discharge only December 1927 to September 1930, published in WSP 1313.
 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 km²) above station. Several observations of water temperature were made during the year.
 AVERAGE DISCHARGE.--53 years (water years 1928-80), 140 ft³/s (3.965 m³/s), 101,400 acre-ft/yr (125 hm³/yr).
 EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,400 ft³/s (918 m³/s) Dec. 18, 1978, gage height, 12.5 ft (3.81 m), from floodmark, from rating curve extended above 7,000 ft³/s (200 m³/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 ft³/s (0.40 m³/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.--Peak discharges above base of 600 ft³/s (17 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 15	1000	*3,430 97.1	4.67 1.423	Sept. 12	0230	645 18.3	2.05 0.625

Minimum discharge, 28 ft³/s (0.79 m³/s) July 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	55	62	66	95	340	123	197	96	33	34	48
2	51	55	61	66	99	316	122	199	92	32	32	44
3	49	56	60	65	99	291	122	186	92	31	32	42
4	48	58	60	65	95	300	132	174	90	30	32	40
5	48	56	61	64	91	287	142	172	88	29	32	40
6	47	57	61	61	88	265	137	164	83	28	36	45
7	46	59	62	62	87	249	142	173	83	29	34	61
8	45	62	62	63	88	246	150	196	81	30	40	62
9	45	69	62	63	91	221	169	211	80	30	41	64
10	45	67	62	64	87	226	186	207	79	33	46	133
11	45	65	63	67	83	230	197	202	77	41	70	239
12	45	63	63	68	80	273	211	197	75	43	76	493
13	45	63	64	65	63	278	229	180	75	40	74	263
14	46	62	63	65	258	265	211	159	72	37	74	177
15	46	62	63	67	2790	248	191	143	70	40	75	130
16	46	62	64	65	2520	245	167	136	65	38	71	105
17	46	62	64	65	1320	241	159	137	60	35	59	89
18	47	63	63	65	1080	228	165	130	56	34	51	79
19	48	63	64	67	1220	216	189	124	53	34	48	71
20	48	67	64	67	2100	210	205	128	50	33	44	64
21	51	65	69	69	1920	192	205	137	50	32	42	59
22	52	64	75	84	1280	171	231	143	48	35	39	54
23	53	63	73	88	1040	162	268	158	45	40	37	51
24	53	63	71	85	793	161	256	170	43	40	52	50
25	52	63	67	80	590	156	239	165	40	38	52	51
26	52	63	69	76	486	149	214	152	35	35	59	53
27	52	63	76	74	419	147	185	137	36	34	66	53
28	52	62	75	74	372	144	163	124	35	33	103	53
29	53	62	73	76	360	142	150	113	34	33	92	55
30	53	62	71	81	---	132	163	104	34	36	67	53
31	54	---	67	90	---	125	---	101	---	35	55	---
TOTAL	1514	1856	2034	2177	19694	6856	5423	4919	1917	1071	1665	2821
MEAN	48.8	61.9	65.6	70.2	679	221	181	159	63.9	34.5	53.7	94.0
MAX	54	69	76	90	2790	340	268	211	96	43	103	493
MIN	45	55	60	61	63	125	122	101	34	28	32	40
AC-FT	3000	3680	4030	4320	39060	13600	10760	9760	3800	2120	3300	5600
CAL YR 1979	TOTAL	110028	MEAN	301	MAX	3960	MIN	45	AC-FT	218200		
WTR YR 1980	TOTAL	51947	MEAN	142	MAX	2790	MIN	28	AC-FT	103000		

GILA RIVER BASIN

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 mi² (179 km²).

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 except those for December, January, and August, which are fair.

AVERAGE DISCHARGE.--13 years, 30.9 ft³/s (0.875 m³/s), 22,390 acre-ft/yr (27.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,800 ft³/s (306 m³/s) Aug. 12, 1967, gage height, 13.7 ft (4.18 m), from floodmarks, from rating curve extended above 220 ft³/s (6.23 m³/s) on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 160 ft³/s (4.5 m³/s), and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 15	2300	*1,070 30.3	4.69 1.430	Sept. 11	0915	282 7.99	2.74 0.835

No flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.17	.60	1.6	3.0	44	104	31	51	9.8	.00	.00	12
2	.11	.73	1.9	4.0	37	86	32	38	9.3	.00	.00	12
3	.05	.80	1.8	4.0	29	72	30	38	8.2	.00	.00	13
4	.02	.89	1.8	5.0	24	67	31	47	7.2	.00	.00	14
5	.02	.98	1.7	5.0	22	55	39	70	6.7	.00	.82	16
6	.02	1.1	1.7	6.0	19	53	57	79	6.4	.00	2.3	18
7	.00	1.3	1.7	6.0	16	51	70	76	6.0	.00	1.9	16
8	.00	1.8	1.7	7.0	15	45	76	72	5.5	.00	1.6	10
9	.00	2.5	1.7	7.0	12	43	82	67	5.1	.00	2.0	7.0
10	.00	1.4	1.6	7.0	10	44	95	57	4.8	.00	2.0	9.5
11	.00	1.3	1.7	8.0	8.9	60	109	50	4.2	.00	2.0	118
12	.00	1.5	1.7	8.0	8.0	66	94	37	3.2	.00	1.7	53
13	.00	1.7	1.8	9.0	7.7	72	68	31	2.6	.00	5.0	25
14	.00	1.7	1.8	9.0	162	76	53	28	2.3	.00	25	16
15	.00	1.7	1.6	9.0	686	81	55	31	2.1	.00	10	12
16	.00	1.7	1.6	9.3	509	70	78	27	1.8	.00	9.0	8.7
17	.00	1.7	1.6	6.2	227	61	94	24	1.5	.00	7.0	6.3
18	.01	1.5	1.5	4.6	199	57	101	29	1.3	.00	5.0	5.0
19	.03	1.5	1.7	3.9	369	55	106	35	1.2	.00	3.0	3.9
20	.04	1.7	1.6	3.6	373	47	111	35	1.1	.00	1.0	3.1
21	.29	1.9	3.3	4.3	238	43	126	39	1.1	.00	.50	2.5
22	.66	1.9	4.1	10	180	46	124	41	1.0	.00	.32	2.3
23	.56	1.8	2.4	8.9	159	44	95	34	.89	.00	.52	2.1
24	.40	1.8	2.3	12	129	36	78	26	.78	.00	11	2.1
25	.33	1.7	2.3	12	111	31	58	21	.50	.00	9.7	1.9
26	.26	2.0	4.2	11	107	27	44	17	.00	.00	11	1.8
27	.25	2.1	5.0	9.3	112	30	37	14	.00	.00	23	1.8
28	.19	2.1	4.5	7.5	117	29	46	12	.00	.00	14	1.5
29	.25	2.1	4.0	7.2	115	26	77	11	.00	.00	12	1.7
30	.35	1.8	3.5	81	---	29	72	11	.00	.00	11	1.5
31	.46	---	3.0	57	---	31	---	10	---	.00	11	---
TOTAL	4.47	47.30	72.4	344.8	4045.6	1637	2169	1158	94.57	.00	183.36	397.7
MEAN	.14	1.58	2.34	11.1	140	52.8	72.3	37.4	3.15	.000	5.91	13.3
MAX	.66	2.5	5.0	81	686	104	126	79	9.8	.00	25	118
MIN	.00	.60	1.5	3.0	7.7	26	30	10	.00	.00	.00	1.5
AC-FT	8.9	94	144	684	8020	3250	4300	2300	188	.00	364	789
CAL YR 1979	TOTAL	17749.68	MEAN	48.6	MAX	554	MIN	.00	AC-FT	35210		
WTR YR 1980	TOTAL	10154.20	MEAN	27.7	MAX	686	MIN	.00	AC-FT	20140		

09430600 MOGOLLON CREEK NEAR CLIFF, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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)
OCT 17...	1200	.02	170	8.7	24.0	14.5	10.8	68	--	20
DEC 11...	1200	1.7	110	8.0	13.5	3.0	9.8	51	0	15
APR 16...	1200	79	61	7.6	25.0	11.0	9.5	20	0	6.1
JUN 11...	1200	4.5	80	8.1	33.0	18.5	8.2	29	0	8.8
AUG 20...	1200	1.0	130	8.2	26.0	21.0	8.2	53	5	16

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 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 17...	4.4	10	.5	1.4	58	20	2.8	.4	11
DEC 11...	3.3	7.5	.5	.8	53	15	2.0	.4	17
APR 16...	1.2	3.8	.4	.7	--	9.5	2.8	.3	17
JUN 11...	1.8	4.9	.4	.9	29	10	.9	.3	19
AUG 20...	3.1	7.0	.4	1.1	48	16	2.1	.4	19

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 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, ORTHOPH- OSPHATE DISSOL. (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CYANIDE TOTAL (MG/L AS CN) (00720)
------	-------------------------------------------------------------------------------	--------------------------------------------------------------------------------	-----------------------------------------------------------------	--------------------------------------------------------------------------	--------------------------------------------------------	---------------------------------------------------------------------------------	-------------------------------------------------------	-----------------------------------------------------------------	------------------------------------------------

OCT 17...	109	--	.04	.10	.020	.010	55	3	.00
DEC 11...	115	93	.06	.00	.000	.010	--	--	--
APR 16...	65	49	.02	.03	.060	.040	80	2	.00
JUN 11...	67	64	.00	.01	.010	.040	--	--	--
AUG 20...	84	94	.00	.00	.030	.000	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 17...	1200	1	1	200	10	<1	1	3	0	0	<3
APR 16...	1200	2	0	100	7	<1	0	<1	0	0	<3

09430600 MOGOLLON CREEK NEAR CLIFF, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 17...	0	<10	70	55	9	<10	9	8	3	.1
APR 16...	0	<10	150	80	0	29	7	0	2	.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 17...	.0	<10	0	0	0	0	120	6.0	0	6
APR 16...	.1	<10	0	0	0	0	37	3.0	10	<3

RADIOCHEMICAL ANALYSED, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 (PCI/L RADON METHOD (PCI/L) (09511)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L) (80020)
OCT 17...	1200	2.1	<.4	1.9	<.4	1.8	.4	.07	.70

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

		PCB, TOTAL IN BOT- TOM MA- TERIAL	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL	DDD, TOTAL IN BOT- TOM MA- TERIAL	DDE, TOTAL IN BOT- TOM MA- TERIAL
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)
OCT 17...	1200	.00	0	.00	.0	.0

		DDE, TOTAL IN BOT- TOM MA- TERIAL	DDT, TOTAL IN BOT- TOM MA- TERIAL	DI- AZINON, TOTAL	DI- ELDRIN TOTAL	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL	ENDO- SULFAN, TOTAL	ENDRIN, TOTAL	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL	ETHION, TOTAL	
DATE		DDT, TOTAL (UG/L) (39368)	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL (UG/KG) (39373)	DI- AZINON, TOTAL (UG/L) (39570)	DI- ELDRIN TOTAL (UG/L) (39380)	DI- ELDRIN, TOTAL (UG/KG) (39383)	ENDO- SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)
OCT 17...	.0	.00	.00	.0	.00	.00	.0	.00	.00	.0	.00

		HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL.	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL.	LINDANE TOTAL	LINDANE TOTAL IN BOT- TOM MA- TERIAL	MALA- THION, TOTAL	METH- OXY- CHLOR, TOTAL	METH- OXY- CHLOR, TOTAL IN BOT- TOM MA- TERIAL	METHYL PARA- THION, TOTAL	
DATE		HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/L) (39413)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/L) (39420)	LINDANE TOTAL (UG/L) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL (UG/KG) (39343)	MALA- THION, TOTAL (UG/L) (39530)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	METH- OXY- CHLOR, TOTAL (UG/L) (39481)	METHYL PARA- THION, TOTAL (UG/L) (39600)
OCT 17...	.00	.0	.00	.00	.0	.00	.0	.00	.00	.0	.00

09430600 MOGOLLON CREEK NEAR CLIFF, NM -- Continued

WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)	MIREX, TOTAL (UG/L) (39755)
OCT 17...	.00	.00	0	0	.00	.00	.00	.00	.00

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 17...	1200	6500	93	160
DEC 11...	1200	22	0	8
APR 16...	1200	68	0	10
JUN 11...	1200	91	4	10
AUG 20...	1200	2800	12	29

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 04...	1200	.04	17.0	0	.00
17...	1200	.02	14.5	1	.00
31...	1100	.53	9.0	1	.00
NOV 15...	1120	1.7	7.0	0	.00
DEC 03...	1420	1.5	3.0	0	.00
11...	1200	1.7	3.0	2	.01
JAN 16...	1130	11	2.5	3	.09
FEB 05...	1010	23	4.0	1	.06
MAR 03...	1030	76	5.0	1	.21
20...	1030	49	4.0	0	.00
APR 01...	1430	32	9.0	0	.00
16...	1200	79	11.0	0	.00
MAY 13...	0905	33	7.0	0	.00
JUN 07...	1255	6.2	18.0	0	.00
11...	1200	4.5	18.5	0	.00
AUG 07...	1045	1.4	21.0	0	.00
20...	1200	1.0	21.0	1	.00
22...	1030	.29	19.0	0	.00
SEP 09...	1030	6.2	17.0	2	.03

09431100 MANGAS CREEK BELOW MANGAS SPRINGS, NM

LOCATION.--Lat 32°50'57, long 108°31'13", in SE¼SW¼ sec.5, T.17 S., R.16 W., Grant County, Hydrologic Unit 15040002, 0.1 mi (0.2 km) upstream from Blacksmith Canyon and 15 mi (24 km) southeast of Gila.

DRAINAGE AREA.--177 mi² (458 km²).

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS 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)
NOV 15...	1435	3.9	593	8.1	16.0	240	53	76	13	28	.8	2.5
JAN 16...	0830	4.3	595	8.0	10.0	---	---	---	---	---	---	---
MAR 20...	1425	4.3	580	8.0	8.0	250	67	76	14	32	.9	2.1
MAY 22...	1050	3.5	580	8.0	19.0	240	42	74	14	27	.8	2.1
JUL 01...	1730	3.1	488	7.6	25.0	180	53	52	13	27	.9	2.0
SEP 08...	1500	3.7	592	8.2	24.0	240	53	76	13	29	.8	2.8
DATE	ALKA- LITY (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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHOPH OSPHATE DISSOL. (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)
NOV 15...	190	78	13	.5	32	---	386	6.6	---	---	---	---
JAN 16...	---	---	---	---	---	---	---	---	---	---	---	---
MAR 20...	180	81	16	.5	31	---	386	5.6	---	---	---	---
MAY 22...	200	82	11	.3	30	388	385	5.6	.040	30	<10	---
JUL 01...	130	82	12	.7	14	---	302	4.7	---	---	---	---
SEP 08...	190	83	13	.6	33	423	391	6.0	.040	---	<10	<1

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 W $\frac{1}{2}$ 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 mi² (7,327 km²).

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 fair except those for June thru August, which are poor. Diversions for irrigation of about 5,000 acres (20 km²) above station. National Weather Service gage height telemeter at station.
AVERAGE DISCHARGE.--64 years (water years 1906, 1909-10, 1913-55, 1963-80), 202 ft³/s (5.721 m³/s), 146,300 acre-ft/yr (180 hm³/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,800 ft³/s (1,380 m³/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 ft³/s (269 m³/s) on basis of slope-area measurement of peak flow; minimum, 2.2 ft³/s (0.062 m³/s) Aug. 5, 1947.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,180 ft³/s (175 m³/s) at 1715 hours Feb. 15, gage height, 11.61 ft (3.539 m), no other peak above base of 3,000 ft³/s (85 m³/s); minimum daily, 20 ft³/s (0.57 m³/s) July 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	50	71	71	88	475	122	203	92	23	27	60
2	35	62	65	71	98	437	119	208	94	22	28	40
3	37	52	63	69	93	402	120	209	90	21	30	38
4	42	59	67	69	103	394	116	202	85	21	32	30
5	36	65	69	65	105	366	117	201	80	20	34	30
6	39	69	71	69	98	340	117	212	80	21	34	34
7	35	58	69	67	100	306	116	207	78	23	33	62
8	35	51	67	63	108	295	144	215	130	25	34	49
9	35	51	63	69	114	291	165	222	90	27	38	116
10	41	59	63	71	108	280	171	220	80	30	40	359
11	42	63	63	73	98	282	180	207	74	37	46	343
12	36	59	69	75	98	301	205	193	66	40	40	495
13	36	65	71	69	103	323	203	180	60	50	61	364
14	43	69	73	75	145	315	203	171	60	70	172	191
15	36	67	65	79	3210	321	185	163	58	50	124	113
16	35	59	63	73	3240	329	178	153	55	35	75	100
17	33	69	65	73	1120	320	179	146	50	30	58	97
18	33	65	69	69	1530	310	193	144	38	28	56	94
19	37	59	69	73	1400	302	213	139	40	29	54	84
20	45	59	69	75	2460	289	241	131	40	30	52	74
21	42	73	75	75	2880	281	270	132	38	31	48	68
22	49	67	77	84	1680	271	314	132	36	32	46	50
23	49	69	69	88	950	259	339	131	33	31	44	48
24	52	75	71	88	796	254	335	127	33	30	60	46
25	45	67	75	86	603	249	309	126	30	31	70	47
26	42	65	81	88	540	243	269	123	29	30	44	48
27	44	69	75	86	610	235	211	118	27	29	50	50
28	51	69	77	86	561	232	189	112	25	28	46	52
29	52	69	79	79	510	223	189	106	24	28	65	60
30	54	71	75	84	---	184	190	100	24	28	98	54
31	55	---	69	93	---	166	---	97	---	27	70	---
TOTAL	1282	1904	2167	2355	23549	9275	5902	5030	1739	957	1709	3296
MEAN	41.4	63.5	69.9	76.0	812	299	197	162	58.0	30.9	55.1	110
MAX	55	75	81	93	3240	475	339	222	130	70	172	495
MIN	33	50	63	63	88	166	116	97	24	20	27	30
AC-FT	2540	3780	4300	4670	46710	18400	11710	9980	3450	1900	3390	6540
CAL YR 1979	TOTAL	140564	MEAN 385	MAX 6000	MIN 25	AC-FT 278800						
WTR YR 1980	TOTAL	59165	MEAN 162	MAX 3240	MIN 20	AC-FT 117400						

09431500 GILA RIVER NEAR REDROCK, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1967 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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												
02...	0950	38	420	8.2	--	16.0	--	--	--	--	--	--
16...	1045	35	422	8.3	--	15.0	--	--	--	--	--	--
18...	0930	32	330	8.3	17.0	13.0	7.5	8.9	140	0	40	9.2
NOV												
05...	1255	67	422	8.2	--	13.0	--	--	--	--	--	--
14...	0950	64	418	8.2	--	6.0	--	--	--	--	--	--
15...	1330	67	300	8.5	21.5	9.0	4.5	10.6	140	0	42	8.6
DEC												
05...	0930	72	410	8.0	--	5.0	--	--	--	--	--	--
12...	1100	69	424	8.4	13.5	6.0	3.4	13.6	140	0	41	8.4
JAN												
16...	1330	69	406	8.6	18.0	5.0	4.5	13.0	130	0	40	8.1
FEB												
04...	0940	98	386	8.0	--	7.0	--	--	--	--	--	--
27...	1105	633	228	7.7	--	9.0	--	--	--	--	--	--
27...	1500	638	222	8.1	28.0	14.0	22	9.6	69	0	20	4.6
MAR												
18...	1105	313	266	7.9	--	9.0	--	--	--	--	--	--
19...	1300	315	200	8.2	16.0	10.0	5.5	9.5	83	0	24	5.5
APR												
17...	1000	177	200	8.2	23.5	15.0	5.4	9.2	85	0	25	5.4
MAY												
06...	1330	216	261	8.4	--	19.0	2.1	--	87	0	26	5.3
15...	1000	164	241	8.2	--	15.0	--	--	--	--	--	--
JUN												
02...	1530	98	324	8.5	--	21.0	--	--	--	--	--	--
12...	0930	66	320	8.4	27.5	18.5	2.4	8.7	110	0	34	6.9
13...	1440	60	353	8.0	--	25.0	--	--	--	--	--	--
JUL												
03...	1150	21	385	8.3	--	25.0	.40	--	130	0	38	8.0
17...	1020	31	409	8.4	--	23.0	38	--	140	0	41	8.3
AUG												
06...	1235	34	403	8.7	--	25.0	--	--	--	--	--	--
21...	1030	48	350	8.4	28.5	20.5	32	8.8	130	0	39	7.9
25...	1140	87	325	8.9	--	23.0	--	--	--	--	--	--
SEP												
03...	1120	41	439	8.8	--	21.0	32	--	130	0	37	8.2
18...	0955	99	362	8.4	--	19.0	--	--	--	--	--	--
24...	0950	44	393	8.5	--	18.0	--	--	--	--	--	--

WATER-QUALITY RECORDS

[illegible]

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

[illegible]

GILA RIVER BASIN
09431500 GILA RIVER NEAR REDROCK, NM -- Continued
WATER-QUALITY RECORDS

555

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIIUM, 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)
NOV 15...	1330	1	1	300	20	0	<1	0	0	0
DEC 12...	1100	--	--	--	--	--	--	--	--	--
FEB 27...	1500	2	3	200	20	0	<1	0	0	0
MAR 19...	1300	--	--	--	--	--	--	--	--	--
JUN 12...	0930	3	2	0	20	0	<1	0	0	1
JUL 03...	1150	--	--	--	--	--	--	--	--	--
JUL 17...	1020	--	--	--	--	--	--	--	--	--
AUG 21...	1030	--	--	--	--	--	--	--	--	--

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 15...	<3	3	0	420	10	4	1	40	3	.1
DEC 12...	--	--	--	--	--	--	--	--	--	--
FEB 27...	<3	7	0	1200	110	6	0	50	4	.0
MAR 19...	--	--	--	--	--	--	--	--	--	--
JUN 12...	<3	4	2	170	<10	0	1	10	3	.0
JUL 03...	--	--	--	--	--	--	--	--	--	--
JUL 17...	--	--	--	--	--	--	--	--	--	--
AUG 21...	--	--	--	--	--	--	--	--	--	--

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 RECOV- ERABLE (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 15...	.0	7	0	0	0	0	0	40	<3
DEC 12...	--	--	--	--	--	0	--	--	--
FEB 27...	.0	0	0	0	0	0	0	20	<3
MAR 19...	--	--	--	--	--	0	--	--	--
JUN 12...	.1	2	0	0	0	0	0	30	4
JUL 03...	--	--	--	--	--	0	--	--	--
JUL 17...	--	--	--	--	--	0	--	--	--
AUG 21...	--	--	--	--	--	0	--	--	--

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
NOV 15...	1330	7.1	< .4	3.2	1.0	2.9	1.0	.04	2.2
JUN 12...	0930	< 3.5	< .4	2.9	< .4	2.8	< .4	.09	1.5

GILA RIVER BASIN
09431500 GILA RIVER NEAR REDROCK, NM -- Continued
WATER-QUALITY RECORDS

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 18...	0930	700	13	22
NOV 15...	1330	--	12	12
DEC 12...	1100	13	4	38
JAN 16...	1330	--	6	15
FEB 27...	1500	290	2	31
MAR 19...	1300	--	2	23
APR 17...	1000	110	6	53
JUN 12...	0930	71	44	60
AUG 21...	1030	6700	110	150

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 15, 79	MAR 19, 80	JUN 12, 80	AUG 21, 80
TIME	1330	1300	0930	1030
TOTAL CELLS/ML	470	300	1400	850
DIVERSITY: DIVISION	0.4	0.0	1.2	1.2
...CLASS	0.4	0.0	1.2	1.2
...ORDER	0.5	0.6	1.2	1.2
...FAMILY	1.8	1.4	1.6	2.0
...GENUS	2.0	1.4	2.1	2.0
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)				
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...OOCYSTACEAE				
....OOCYSTIS	14	3	--	--
...SCENEDESMACEAE				
....SCENEDESMUS	--	--	150	11
..VOLVOCALES				
...CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS	29	6	--	77
CHRYSOPHYTA				
..BACILLARIOPHYCEAE				
...CENTRALES				
...COSCINODISCACEAE				
....CYCLOTELLA	--	--	39	13
..PENNALES				
...ACHNANTHACEAE				
....ACHNANTHES	43	9	--	26
...COCCONEIS	57	12	--	--
..CYMBELLACEAE				
....CYMBELLA	--	--	13	4
...GOMPHONEMACEAE				
....GOMPHONEMA	--	--	13	1
...NAVICULACEAE				
....NAVICULA	260#	55	52#	17
...NITZSCHIACEAE				
....NITZSCHIA	72#	15	190#	65
CYANOPHYTA (BLUE-GREEN ALGAE)				
..CYANOPHYCEAE				
...HORMOGONALES				
...NOSTOCACEAE				
....APHANIZOMENON	--	--	--	340#
...OSCILLATORIACEAE				
....LYNGBYA	--	--	650#	48
...OSCILLATORIA	--	--	260#	19
				210#

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 1979 TO SEPTEMBER 1980
PERIPHYTON

DATE	TIME	LENGTH OF EXPO- SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00022)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERI- PHYTON CHROMO- FLUOROM (MG/M2) (70957)	CHLOR-B PERI- PHYTON CHROMO- FLUOROM (MG/M2) (70958)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)	SAMPLING METHOD
OCT 18...	0930	29	4.72	4.09	5.27	1.16	120	Polyethylene strip
JAN 16...	1330	35	.470	.390	.430	.110	186	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (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...	0950	38	16.0	37	3.8	--
16...	1045	35	15.0	13	1.2	--
18...	0930	32	13.0	11	.95	98
NOV						
05...	1255	67	13.0	16	2.9	--
14...	0950	64	6.0	11	1.9	--
15...	1330	67	9.0	14	2.5	73
DEC						
05...	0930	72	5.0	8	1.6	91
12...	1100	69	6.0	10	1.9	81
JAN						
16...	1330	69	5.0	13	2.4	97
FEB						
04...	0940	98	7.0	9	2.4	--
27...	1105	633	9.0	123	210	--
27...	1500	638	14.0	156	269	42
MAR						
18...	1105	313	9.0	17	14	--
19...	1300	315	10.0	27	23	68
APR						
17...	1000	177	15.0	52	25	14
MAY						
06...	1330	216	19.0	49	29	--
15...	1000	164	15.0	5	2.2	11
JUN						
02...	1530	98	21.0	6	1.6	--
12...	0930	66	18.5	43	7.7	21
13...	1440	60	25.0	6	.97	--
JUL						
03...	1150	21	25.0	5	.29	69
17...	1020	31	23.0	65	5.5	--
AUG						
06...	1235	34	25.0	19	1.7	--
21...	1030	48	20.5	76	9.8	88
25...	1140	87	23.0	23700	5570	100
SEP						
03...	1120	41	21.0	64	7.1	99
18...	0955	99	19.0	68	18	99
24...	0950	44	18.0	17	2.0	97

GILA RIVER BASIN

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 mi² (8,296 km²), excluding Animas River Basin.
 PERIOD OF RECORD.--May to November 1914, March to September 1915, July 1927 to current year. July 1927 to May 1931 monthly discharge only, published in WSP 1313, computed as sum of flow at Virden Bridge, 9 mi (14 km) downstream, and in Sunset Canal. Published as Gila River near Duncan, 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.
 REMARKS.--Records fair except those for period of no gage height record, Feb. 23 to Apr. 17, which are poor. Station is above all Duncan Valley diversions. Diversions for irrigation of about 6,200 acres (25 km²) above station.
 AVERAGE DISCHARGE.--53 years (water years 1927-80), 185 ft³/s (5.239 m³/s), 134,000 acre-ft/yr (165 hm³/yr).
 EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 58,700 ft³/s (1,660 m³/s) Dec. 19, 1978, gage height, 29.00 ft (8.839 m) from rating curve extended above 38,000 ft³/s (1,080 m³/s) on basis of slope-area measurement of peak flow; minimum, 1 ft³/s (0.028 m³/s) July 14, 1934.
 EXTREMES FOR CURRENT YEAR.--Maximum discharge (*), (from rating curve extended above 38,000 ft³/s or 1,080 m³/s on basis of slope-area measurement of peak flow) and peak discharge above base of 1,900 ft³/s (54 m³/s).

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 16	1130	4,180 118	10.42 3.176	Sept. 10	0100	*4,300 122	11.60 3.536
Feb. 21	0100	2,950 83.5	10.15 3.094				

Minimum daily, 22 ft³/s (0.62 m³/s) July 31.DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	49	69	72	86		190	219	106	27	24	49
2	36	49	70	74	90		190	235	100	26	24	43
3	35	51	68	73	88		180	240	97	26	24	37
4	34	49	67	73	88		180	224	91	25	25	35
5	35	52	68	71	96		180	207	86	25	27	36
6	36	55	70	72	95		180	219	77	24	28	201
7	34	56	71	74	83		180	217	74	25	28	142
8	34	55	71	72	94		180	222	74	25	31	53
9	33	52	68	73	102		180	230	140	24	30	284
10	34	54	68	75	100		190	240	109	25	35	711
11	34	56	67	77	97		220	235	77	26	43	695
12	38	57	68	79	91		230	232	63	28	32	212
13	36	58	71	76	96		240	224	60	43	140	232
14	36	59	71	75	231		250	214	61	64	266	183
15	38	62	70	80	2220		250	190	64	42	183	154
16	38	62	67	78	4020		240	177	55	36	75	127
17	36	61	65	76	3700		240	163	48	32	59	113
18	34	64	68	75	2100		235	154	45	29	52	102
19	34	64	70	74	1900		245	150	47	27	53	91
20	35	62	70	76	1950		269	138	47	28	49	82
21	40	61	72	77	2580		287	129	43	29	44	77
22	41	66	74	82	1880		298	141	39	28	40	70
23	43	67	72	85	1500		334	141	38	28	34	66
24	45	69	72	85	1300		349	141	38	27	36	62
25	47	70	73	85	1100		349	143	34	28	61	60
26	43	69	78	85	900		328	150	32	27	55	60
27	40	68	79	86	740		287	150	31	26	50	59
28	41	69	78	86	680		245	139	30	24	45	56
29	45	70	80	85	600		219	130	29	23	43	61
30	47	69	79	84	---		210	121	27	23	51	60
31	49	---	75	88	---		---	113	---	22	52	---
TOTAL	1185	1805	2209	2423	28607	9900	7155	5628	1862	892	1739	4213
MEAN	38.2	60.2	71.3	78.2	986	319	239	182	62.1	28.8	56.1	140
MAX	49	70	80	88	4020	---	349	240	140	64	266	711
MIN	33	49	65	71	83	---	180	113	27	22	24	35
AC-FT	2350	3580	4380	4810	56740	19640	14190	11160	3690	1770	3450	8360

CAL YR 1979	TOTAL	147024	MEAN	403	MAX	7400	MIN	33	AC-FT	291600
WTR YR 1980	TOTAL	67618	MEAN	185	MAX	4020	MIN	22	AC-FT	134100

NOTE: NO GAGE-HEIGHT RECORD FEB. 23 TO APR. 17.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	7.0	5.4	9.4	14	133	48	93	9.4	6.3	12	8.5
2	7.6	7.1	5.4	9.4	11	117	50	86	9.1	5.8	10	7.9
3	7.2	6.6	9.9	8.0	10	115	51	78	9.2	5.2	8.3	8.2
4	7.5	6.0	9.8	8.0	9.8	100	50	76	8.8	5.3	9.2	8.4
5	6.6	6.5	9.6	8.0	9.3	90	50	72	8.5	5.5	9.9	8.5
6	6.3	6.6	10	8.8	9.2	91	56	66	8.8	5.1	9.1	8.3
7	6.3	7.3	9.7	9.1	9.0	92	60	60	8.7	5.3	8.2	8.7
8	6.2	9.1	9.7	8.8	8.0	85	67	54	9.0	5.5	9.4	8.7
9	6.0	10	9.8	10	7.0	82	74	50	8.8	5.6	9.6	9.0
10	5.0	9.9	10	10	7.0	83	81	47	8.7	6.0	9.1	9.1
11	6.0	9.2	11	10	6.0	79	92	42	8.2	6.4	7.1	12
12	6.1	9.2	11	10	6.0	80	97	40	7.8	6.6	7.7	8.3
13	6.0	8.6	10	10	6.0	72	105	37	7.5	7.6	11	7.9
14	6.3	8.7	9.3	10	80	83	98	35	7.9	8.4	12	7.8
15	6.5	9.4	8.6	9.5	190	104	77	37	7.1	7.3	11	7.7
16	6.6	9.0	9.2	9.1	145	99	73	41	7.5	6.7	8.4	8.0
17	6.7	9.4	8.5	9.1	99	83	77	38	7.0	5.5	7.3	7.7
18	6.8	9.4	7.6	10	111	74	82	36	6.7	6.1	6.9	8.0
19	6.9	9.5	8.2	11	210	77	85	41	6.3	6.7	6.4	8.0
20	6.9	9.3	9.4	11	650	70	85	35	6.3	8.5	6.1	8.0
21	9.4	7.2	11	11	303	70	110	32	7.0	15	6.4	7.0
22	9.7	7.4	10	13	240	74	140	26	6.6	13	8.1	7.0
23	8.5	7.2	8.6	11	204	64	140	23	5.9	12	23	7.0
24	8.0	9.7	6.5	9.4	175	56	130	19	5.7	10	93	7.0
25	7.7	9.0	8.6	9.4	149	54	120	17	6.0	10	26	6.0
26	8.0	9.7	11	9.5	136	49	110	15	6.1	11	13	6.0
27	8.0	9.9	14	9.5	132	51	100	13	5.9	11	11	7.0
28	7.5	9.2	11	9.3	135	59	95	13	6.8	11	10	7.0
29	7.5	8.2	7.2	13	139	52	91	11	6.7	24	9.2	7.0
30	7.7	6.5	8.2	21	---	49	91	11	6.6	31	8.6	6.5
31	7.0	---	7.6	16	---	52	---	10	---	15	8.2	---
TOTAL	220.3	251.8	285.8	321.3	3210.3	2439	2585	1254	224.6	288.4	395.2	236.2
MEAN	7.11	8.39	9.22	10.4	111	78.7	86.2	40.5	7.49	9.30	12.7	7.87
MAX	9.7	10	14	21	650	133	140	93	9.4	31	93	12
MIN	5.0	6.0	5.4	8.0	6.0	49	48	10	5.7	5.1	6.1	6.0
AC-FT	437	499	567	637	6370	4840	5130	2490	445	572	784	469
CAL YR 1979	TOTAL	19980.7	MEAN	54.7	MAX	323	MIN	5.0	AC-FT	39630		
WTR YR 1980	TOTAL	11711.9	MEAN	32.0	MAX	650	MIN	5.0	AC-FT	23230		

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 mi² (244 km²).

PERIOD OF RECORD.--July 1966 to current year. 1955 to 1965 at site 0.6 mi (1.0 km) upstream (drainage area, 89 mi² or 231 km²), 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.--14 years, 3.36 ft³/s (0.095 m³/s), 2,430 acre-ft/yr (3.00 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 392 ft³/s (11.1 m³/s) Sept. 1, 1971, gage height, 3.13 ft (0.954 m), from rating curve extended above 80 ft³/s (2.27 m³/s) on basis of slope-area measurement of peak flow; minimum, 1.1 ft³/s (0.031 m³/s) July 22, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 59 ft³/s (1.67 m³/s) at 0500 hours Feb. 20, gage height, 2.22 ft (0.677 m), no other peak above base of 20 ft³/s (0.57 m³/s); minimum, 2.5 ft³/s (0.071 m³/s) Aug. 9, 10, 17, Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	2.9	3.3	3.1	3.0	3.7	3.1	3.2	3.1	3.0	2.9	2.7
2	3.0	2.9	3.3	3.1	3.0	3.7	3.1	3.2	3.1	3.0	2.9	2.7
3	3.0	2.8	3.3	3.0	3.0	3.6	3.1	3.2	3.0	2.9	2.9	2.7
4	3.0	2.8	3.3	3.0	3.1	3.6	3.1	3.2	3.0	2.9	2.9	2.6
5	3.0	2.8	3.4	3.1	3.0	3.5	3.1	3.1	3.0	2.9	2.9	2.6
6	3.0	2.8	3.4	3.0	3.0	3.4	3.0	3.2	3.0	3.0	2.9	2.6
7	3.1	2.9	3.4	3.0	3.1	3.3	3.0	3.1	3.0	3.1	2.9	2.6
8	3.1	3.1	3.4	3.0	3.1	3.3	3.0	3.1	3.0	3.1	3.3	2.6
9	3.1	3.0	3.3	3.0	3.0	3.2	3.0	3.1	3.0	3.0	2.9	2.7
10	3.1	3.0	3.3	3.1	3.2	3.2	3.0	3.1	3.0	3.0	2.8	2.7
11	3.1	3.0	3.3	3.2	3.1	3.3	3.0	3.1	3.0	2.9	2.8	3.0
12	3.2	3.0	3.3	3.0	3.1	3.2	3.2	3.1	3.0	3.0	2.7	2.8
13	3.2	3.0	3.3	3.0	3.2	3.2	3.1	3.1	3.0	3.0	2.7	2.7
14	3.2	3.1	3.3	3.0	3.3	3.1	3.1	3.1	3.0	3.0	2.8	2.7
15	3.2	3.1	3.3	3.1	6.3	3.1	3.1	3.2	3.0	3.0	2.7	2.7
16	3.2	3.1	3.3	3.0	5.3	3.1	3.1	3.2	3.0	2.9	2.7	2.7
17	3.3	3.1	3.2	3.0	3.5	3.1	3.0	3.2	3.0	2.9	2.7	2.8
18	3.2	3.1	3.2	3.1	3.5	3.1	3.0	3.1	3.1	2.9	2.7	2.8
19	3.2	3.1	3.3	3.0	3.5	3.2	3.0	3.1	3.1	3.0	2.7	2.8
20	3.2	3.2	3.2	3.0	23	3.2	3.0	3.1	3.1	3.0	2.7	2.8
21	3.2	3.2	3.3	3.0	11	3.1	3.1	3.1	3.1	3.0	2.7	2.8
22	3.1	3.2	3.2	3.0	8.3	3.1	3.1	3.1	3.1	2.9	2.7	2.8
23	3.1	3.2	3.2	3.0	5.7	3.1	3.0	3.1	3.1	2.9	2.8	2.9
24	3.1	3.1	3.2	3.0	4.4	3.1	3.2	3.0	3.1	2.9	2.9	2.9
25	3.1	3.2	3.2	3.0	4.0	3.1	3.3	3.1	3.1	2.9	2.8	2.9
26	3.0	3.2	3.2	3.0	3.9	3.1	3.2	3.1	3.1	2.9	2.7	2.9
27	3.0	3.2	3.2	3.0	3.9	3.1	3.2	3.1	3.1	2.9	2.7	2.9
28	3.0	3.2	3.2	3.0	3.8	3.2	3.2	3.1	3.1	2.9	2.7	3.0
29	3.0	3.2	3.2	3.1	3.8	3.2	3.2	3.1	3.0	2.9	2.7	3.0
30	2.9	3.2	3.2	3.2	---	3.1	3.2	3.1	3.0	2.9	2.7	3.0
31	2.9	---	3.2	3.0	---	3.1	---	3.1	---	2.9	2.7	---
TOTAL	95.7	91.7	101.4	94.1	137.1	100.4	92.8	96.8	91.3	91.5	86.6	83.4
MEAN	3.09	3.06	3.27	3.04	4.73	3.24	3.09	3.12	3.04	2.95	2.79	2.78
MAX	3.3	3.2	3.4	3.2	23	3.7	3.3	3.2	3.1	3.1	3.3	3.0
MIN	2.9	2.8	3.2	3.0	3.0	3.1	3.0	3.0	3.0	2.9	2.7	2.6
AC-FT	190	182	201	187	272	199	184	192	181	181	172	165
CAL YR 1979	TOTAL	1445.3	MEAN 3.96	MAX 62	MIN 2.7	AC-FT 2870						
WTR YR 1980	TOTAL	1162.8	MEAN 3.18	MAX 23	MIN 2.6	AC-FT 2310						

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 mi² (4,004 km²).

PERIOD OF RECORD.--September 1904 to January 1914, fragmentary (see WSP 1313), January 1964 to current year. Prior to October 1911, published as "at Alma".

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, which are poor. Diversions for irrigation of about 1,600 acres (6.5 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--16 years (water years 1965-80), 77.7 ft³/s (2,200 m³/s), 56,290 acre-ft/yr (69.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,600 ft³/s (867 m³/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 ft³/s (255 m³/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 ft³/s (1,700 m³/s) were computed at Clifton, AZ.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 15	2000	*5,300 150	8.00 2.438	Aug. 8	Unknown	1,820 51.5	5.60 1.707

Minimum discharge, 0.50 ft³/s (0.01 m³/s) at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	1.0	10	16	115	284	89	111	14	2.2	1.3	2.5
2	1.0	1.0	8.6	17	100	254	88	106	13	1.9	4.4	2.0
3	1.0	.50	8.6	17	80	234	89	102	13	1.9	12	1.5
4	1.0	.50	9.8	16	68	234	89	95	13	1.9	11	1.1
5	1.0	.50	11	15	55	200	89	89	13	1.9	20	1.3
6	.50	.50	11	14	53	180	95	82	10	1.9	50	1.3
7	.50	.50	12	14	50	176	104	82	9.2	1.9	110	1.5
8	.50	.50	12	15	49	167	111	77	8.7	1.9	120	5.1
9	.50	4.0	12	16	46	155	128	66	7.1	1.9	35	27
10	.50	5.0	12	18	42	150	144	64	6.2	1.9	32	17
11	.50	6.2	12	19	41	157	156	57	5.5	1.9	30	14
12	.50	6.8	12	20	40	160	161	47	4.8	1.9	29	13
13	.50	6.8	12	20	40	157	164	47	4.8	1.9	27	6.6
14	.50	8.0	11	20	180	160	164	46	4.5	1.7	42	2.2
15	.50	8.6	12	20	1650	176	147	46	4.5	1.7	35	1.5
16	.50	9.2	10	21	1410	190	133	43	4.2	1.7	30	1.1
17	.50	9.8	9.8	21	692	183	131	44	3.6	1.7	26	1.1
18	1.0	11	9.8	21	554	173	136	38	2.9	1.9	23	1.3
19	1.0	12	9.8	21	641	163	144	40	2.9	1.9	22	1.3
20	1.0	12	12	22	2570	163	156	40	3.2	1.7	20	1.3
21	1.0	12	12	23	1310	157	167	33	2.2	1.7	20	1.3
22	1.0	9.8	14	26	976	157	191	33	2.6	1.7	20	1.3
23	1.0	8.0	16	28	801	157	191	29	2.2	1.7	21	1.3
24	.50	10	16	29	627	137	170	30	2.4	1.7	22	1.1
25	.50	11	15	27	456	100	158	23	2.6	1.7	32	1.1
26	1.0	12	14	27	351	91	150	22	2.6	1.5	60	1.1
27	1.0	12	19	26	310	89	150	18	2.4	1.5	50	1.1
28	1.0	12	24	26	302	89	133	16	2.4	1.5	30	.84
29	1.0	12	23	25	302	95	115	16	2.4	1.5	20	.84
30	1.0	11	18	87	---	88	111	16	2.4	1.5	10	.84
31	1.0	---	15	112	---	86	---	15	---	1.5	5.0	---
TOTAL	24.00	214.20	403.4	799	13911	4962	4054	1573	172.3	54.8	969.7	114.32
MEAN	.77	7.14	13.0	25.8	480	160	135	50.7	5.74	1.77	31.3	3.81
MAX	1.0	12	24	112	2570	284	191	111	14	2.2	120	27
MIN	.50	.50	8.6	14	40	86	88	15	2.2	1.5	1.3	.84
AC-FT	48	425	800	1580	27590	9840	8040	3120	342	109	1920	227

CAL YR 1979	TOTAL	57360.05	MEAN	157	MAX	3910	MIN	.00	AC-FT	113800
WTR YR 1980	TOTAL	27251.72	MEAN	74.5	MAX	2570	MIN	.50	AC-FT	54050

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 mi² (4,281 km²).

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 except those for February, which are poor. Diversions for irrigation of about 2,000 acres (8.1 km²) above station. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--53 years, 75.8 ft³/s (2.147 m³/s), 54,920 acre-ft/yr (67.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,000 ft³/s (680 m³/s), Oct. 20, 1972, gage height, 16.61 ft (5.063 m), from rating curve extended 6,500 ft³/s (184 m³/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 ft³/s (0.042 m³/s) Aug. 6, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods probably occurred Jan. 19 and Oct. 14, 1916 when discharges of 60,000 ft³/s (1,700 m³/s) or greater were computed for station at Clifton, AZ. On Nov. 26, 1905, a peak of 25,000 ft³/s (708 m³/s) was measured (by float-area method) at station at Alma (about 12 mi or 19 km upstream, drainage area, 1,560 mi² or 4,040 km²); a similar measurement of 21,000 ft³/s (595 m³/s) was made at the Alma station for peak of Dec. 3, 1906.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft³/s (23 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 16	Unknown	*4,190 119	7.66 2.335	Sept. 11	0400	2,290 64.9	5.68 1.731

Minimum discharge, 16 ft³/s (0.45 m³/s) Oct. 2, July 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	20	27	41	135	320	136	182	57	30	21	22
2	25	22	26	42	110	297	134	173	53	29	19	20
3	24	23	26	42	94	281	132	163	48	30	20	20
4	23	23	26	40	81	280	129	161	44	28	19	21
5	23	23	28	38	75	243	126	165	43	27	23	21
6	22	22	28	36	70	224	128	174	42	28	65	21
7	21	21	27	36	65	223	138	172	38	28	127	22
8	21	23	27	36	60	218	135	172	35	27	133	23
9	22	23	27	37	58	211	137	165	34	25	45	50
10	23	23	28	38	56	203	138	155	34	31	44	71
11	22	23	25	39	54	221	160	150	34	36	42	328
12	21	23	28	39	52	223	175	139	35	34	35	87
13	21	26	29	39	50	217	181	120	34	32	34	63
14	17	28	30	39	150	212	184	113	33	31	60	44
15	18	26	29	39	1700	223	176	113	32	29	45	37
16	19	25	28	39	1300	242	160	111	32	29	36	34
17	21	26	27	39	800	232	158	104	31	26	30	31
18	20	26	28	39	650	247	169	102	29	24	27	29
19	19	26	28	39	630	240	185	101	28	24	26	28
20	18	27	28	39	2500	251	199	106	27	25	24	28
21	23	29	31	42	1540	238	216	111	28	22	24	26
22	23	29	32	48	1020	230	249	119	28	23	23	22
23	21	25	32	50	815	228	249	120	26	20	25	21
24	20	21	32	51	580	217	233	109	27	21	28	26
25	20	23	32	51	460	188	212	93	29	21	52	23
26	20	29	33	51	385	156	195	83	30	20	79	23
27	22	27	40	49	342	146	191	76	28	18	61	22
28	23	23	45	47	327	142	180	69	28	21	44	23
29	22	24	45	47	324	151	178	63	29	22	30	26
30	22	27	45	61	---	150	184	59	30	23	27	25
31	22	---	42	131	---	137	---	57	---	22	25	---
TOTAL	664	736	959	1404	14483	6791	5167	3800	1026	806	1293	1237
MEAN	21	23.5	30.9	45.3	499	219	172	123	34.2	26.0	41.7	41.2
MAX	26	29	45	131	2500	320	249	182	57	36	133	328
MIN	17	20	25	36	50	137	126	57	26	18	19	20
AC-FT	1320	1460	1900	2780	28730	13470	10250	7540	2040	1600	2560	2450
CAL YR 1979	TOTAL	81011	MEAN	222	MAX	5310	MIN	17	AC-FT	160700		
WTR YR 1980	TOTAL	38366	MEAN	105	MAX	2500	MIN	17	AC-FT	76100		

GILA RIVER BASIN
09444000 SAN FRANCISCO RIVER NEAR GLENWOOD, NM -- Continued
WATER-QUALITY RECORDS

563

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

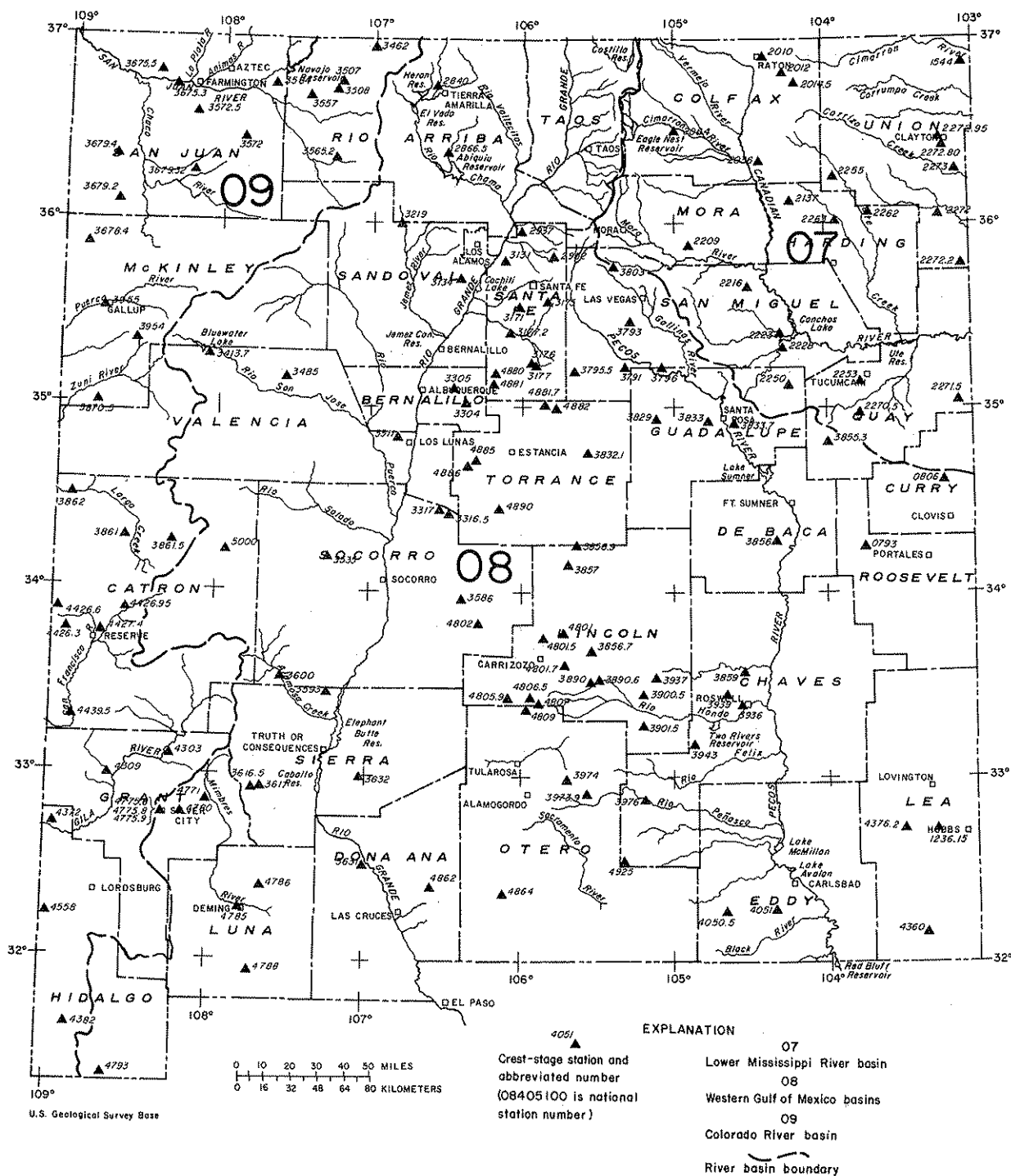
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, 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												
04...	0950	23	358	8.1	17.0	130	0	37	9.6	21	.8	2.6
17...	0920	21	366	8.1	15.0	--	--	--	--	--	--	--
29...	0955	22	362	8.0	14.0	--	--	--	--	--	--	--
NOV												
15...	0900	26	357	8.0	8.0	140	0	39	10	30	1.1	2.8
DEC												
04...	1115	25	448	8.0	14.0	140	0	41	9.8	39	1.4	3.0
FEB												
01...	0955	129	314	7.8	11.0	130	0	36	9.1	20	.8	1.8
26...	1140	407	260	7.8	9.0	96	0	27	6.9	15	.7	1.7
APR												
09...	1020	135	309	8.2	13.0	120	0	34	8.2	20	.8	1.6
30...	0945	176	270	8.2	12.0	98	0	28	6.9	15	.7	1.5
JUN												
05...	0935	44	278	8.3	14.0	100	0	29	7.5	16	.7	2.0
JUL												
01...	1140	34	290	8.8	23.0	120	0	33	8.4	19	.8	2.3
AUG												
03...	1220	22	336	8.7	28.0	130	0	36	9.6	21	.8	2.4
SEP												
04...	0950	23	328	8.3	18.0	130	0	36	9.7	21	.8	2.3

DATE	ALKA- LINITY (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 CONSTITUENTS, 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, ORTHOPH OSPHATE DISSOL. (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT												
04...	160	16	7.0	.4	35	--	227	--	.38	.040	40	<10
17...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
15...	160	19	26	.4	36	--	261	--	.33	.030	110	10
DEC												
04...	160	16	34	.5	35	--	275	--	.17	.010	40	<10
FEB												
01...	140	18	4.9	.3	33	--	207	--	.03	.050	30	<10
26...	97	25	3.7	.3	31	--	170	--	.18	.140	20	20
APR												
09...	130	21	4.7	.2	31	--	200	--	.21	.080	10	<10
30...	100	18	3.4	.3	31	--	165	--	.15	.070	20	10
JUN												
05...	120	15	5.3	.5	32	183	180	--	.09	.030	20	20
JUL												
01...	130	12	5.8	.5	33	--	192	--	.00	.020	40	<10
AUG												
03...	160	14	6.9	.6	35	--	222	.00	.00	.040	80	<10
SEP												
04...	160	13	10	.5	34	211	223	--	.00	.280	130	<10

GILA RIVER BASIN
09444000 SAN FRANCISCO RIVER NEAR GLENWOOD, NM -- Continued
WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	
OCT								
04...	0950	23	17.0	14	.88	--	--	
17...	0920	21	15.0	12	.68	--	--	
29...	0955	22	14.0	8	.48	--	--	
NOV								
15...	0900	26	8.0	12	.84	--	--	
DEC								
04...	1115	25	14.0	91	6.2	--	--	
FEB								
01...	0955	129	11.0	275	96	--	--	
26...	1140	407	9.0	250	275	28	39	
APR								
09...	1020	135	13.0	22	8.0	--	--	
30...	0945	176	12.0	140	67	--	--	
JUN								
05...	0935	44	14.0	8	.95	--	--	
JUL								
01...	1140	34	23.0	5	.46	--	--	
AUG								
03...	1220	22	28.0	34	2.0	--	--	
SEP								
04...	0950	23	18.0	30	1.9	--	--	
		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)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)
OCT								
04...	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--
NOV								
15...	--	--	--	--	--	--	--	--
DEC								
04...	--	--	--	96	--	--	--	--
FEB								
01...	--	--	--	--	--	--	--	--
26...	49	57	63	69	81	99	100	
APR								
09...	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--
JUN								
05...	--	--	--	--	--	--	--	--
JUL								
01...	--	--	--	--	--	--	--	--
AUG								
03...	--	--	--	--	--	--	--	--
SEP								
04...	--	--	--	--	--	--	--	--



DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in 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 name no.	Location	Drainage area (mi ²)	Period of record	Annual maximum			
				Date	Gage height (feet)	Station 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-	07-27-80	e	<200c
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-	09-15-80	0.59	40
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-	- -80	(b)	(+)
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-	- -80	-	0
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-	- -80	-	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-	04-25-80	1.45	12
07213700	Canadian River tributary near Mills, N. Mex.	Lat 36°10'00", long 104°15'47", Harding County, on downstream end of left bridge abutment on State Highway 39, 6 miles north of Mills.	44.2	1954-	- -80	(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)
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-	06-10-80	12.44	3,700
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-	- -80	2.33	(+)
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-	06-10-80	8.25	4,500
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-	- -80	9.73	955
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-	- -80	(b)	(+)
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-	- -80	11.11	(+)
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-	- -80	(e)	-
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-	- -80	(e)	-
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-	- -80	(e)	-
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-	- -80	(e)	-
07227200	Tramperos Creek near Stead, N. Mex.	Lat 36°04'15", long 103°12'10", in NW¼NW¼ sec.10, T.21 N., R.35 E., Union County, at bridge on State Highway 18, 2.1 miles south of Stead and 26 miles south Clayton.	a556	1966-73* 1974-	- -80	(b)	(+)
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-	- -80	(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)	
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-	- -80	(b)	(+)	
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-	- -80	(b)	(+)	
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-	- -80	(b)	(+)	
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-	- -80	(e)		
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	2.43	(+)	
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-	- -80	9.10	2,790	
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-	- -80	-	0	
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-	- -80	(e)	-	
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-	05-15-80	1.56	13	
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-	- -80	-	0	
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-	05-16-80	2.95	<200	

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								
08317800	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-	- -80	-	0	
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-	- -80	-	0	
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-	08-14-80	- 0.20	<80	
08321900	Rio de las Vacas near Senorita, N. Mex.	Lat 35°59'35", long 106°47'45", Sandoval County, at bridge on side road, 0.1 mile south of State High- way 126 and 6.5 miles east of Senorita.	26.8	1957-	09-09-80	4.11	320	
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-	08-27-80	0.77	(+)	
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-	- -79 08-14-80	(b) 2.41	(+) 720	
08331100	Belen Highline Canal tributary near Los Lunas, N. Mex.	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-	08-20-78 - -79 08-27-80	4.55 (b) 4.70	162h (+) 178	
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-	08-10-80	1.72	78	
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 south- east of junction of U.S. Highway 60, and State Highway 6, southwest of of Scholle.	.23	1954-	08-10-80	14.41	73	
08341370	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-	11-08-79	2.38	58	
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-	- -80	(b)	<90	

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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	6.91	3,600	
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	- -79 09-10-80	(b) 4.75	<100 620	
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-	- -79 09-09-80	(b) 2.52	(+) (+)	
08360000	Alamosa Creek near Monticello, N. Mex.	Lat 33°34'10", long 107°36'20", 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-	07-15-74 07-11-75 09-14-76 - -77 08-20-78 08-13-79 09-09-80	5.66 3.84 6.58 6.01 3.81 3.47 6.04	1,580 438 2,420 1,880 424 294 1,910	
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-	09-26-80	2.90	280	
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-	09-26-80	3.31	580	
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-	05-03-80	5.45	142	
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	2.98	250	
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-	- -80	-	0	
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-	09-10-80	5.86	680	
08379550	Cañon 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-	- -80	-	0	
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-	09-09-80	0.62	6.6	

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	1.32	4.4	
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-	09-09-80	1.13	<25	
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-	- -80	-	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-	08-14-80	5.33	(+)	
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-	- -80	6.11	20	
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 Jordan.	9.71	1962-	- -80	-	0	
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	1937-1952-	09-10-80	1.23	550	
08385670	Aragon Creek tributary near Encinosa, 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	3.52	370	
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-	- -80	-	0	
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-	- -80	(b)	<25	
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-	- -80	-	0	
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-	06-10-80	3.67	180	

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-	- -80	-	0
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-	09-09-80	7.40	190
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-	09-09-80	2.92	<5
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-	- -80	-	0
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-	- -80	-	0
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	15.81	1,700
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-	09-09-80	4.52	820
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-	- -80	(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-	09-13-80	1.31	(+)
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-	09-09-80	16.45	6,800
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-	- -80	3.49	178
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-	- -80	6.16	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-	- -80	-	0
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-	05-15-80	5.74	(+)
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-	09-15-79 09-06-80	2.15 (e)	57h -
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-	- -78 - -79 - -80	(b) (b) (b)	<175h <175h <175
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-	09-12-80	2.77	520
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-	- -78 - -79 - -80	(b) (b) (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-	09-12-80	2.00	260
08478500	Mimbres River at Deming, N. Mex.	Lat 32°17'00", long 107°45'35", Luna County, at bridge on U.S. Highway 260, at north end of Deming.	1,370	1954-80g	- -80	(e)	-
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-	- -80	(b)	<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-	- -80	(b)	<30
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-	02-14-80	0.58	94

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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', long 105°44', Lincoln County, 40 ft upstream from culvert on State Highway 349, 1 mile northeast of White Oaks.	1.14	1961-	08-14-80	0.71	(+)
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-	- -80	0.74	<30
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-	06-10-80	2.36	(+)
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-	09-11-80	1.10	(+)
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-	- -80	(b)	<30
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	10.72	390
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-	06-10-80	2.90	38
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-	- -80	(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-	- -79 - -80	(b) (b)	(+) (+)
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-	07-28-79 09-27-80	5.79 4.24	(+) (+)
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-	- -80	(e)	-
08488100	Juan Tomas Canyon near Edgewood, N. Mex.	Lat 35°04'35", long 106°13'46", County, 140 ft upstream from culvert on U.S. Highway 66, 2.5 miles northwest of Edgewood.	a20	1962-	- -80	(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)
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-	- -80	-	0
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.	410	1961-	08-24-80	1.54	<100
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-	10-24-78 08-10-80	1.34 1.31	74h 58
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-	08-10-80	3.24	458
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.	3.9	1953-	- -79 08-10-80	(b) 5.48	<5h 550
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-	08-15-80	3.96	530
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-	07-16-77 10-21-78 09-09-80	5.73h 3.56h 5.29	900h 0.9h 168
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-	05-15-80	6.13	1,050
09350700	Ruben Canyon near Gobernador, N. Mex.	Lat 36°44'26", long 107°14'33", Rio Arriba County, in Carson National Forest, upstream from culvert on State Highway 17, and 6.5 miles east of Gobernador.	5.06	1970-	- -79 05-15-80	(e) 3.69	- (+)
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-	05-15-80	7.60	1,250
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-	- -79 - -80	(b) (b)	<400h <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-	09-24-78 - -79 - -80	2.19 (b) (b)	380h <200h <200
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-	- -80	(b)	<1
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-	08-08-80	0.77	<40
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-	- -79 10-21-79	(b) 2.43	(+) (+)
09367400	La Plata River tributary near Farmington, N. Mex.	Lat 36°47'10", long 108°13'31", San Juan County, about 700 ft upstream from culvert on State Highway 17 and 4.1 miles northwest of Farmington.	1.03	1970-80g	- -80	(e)	-
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-	- -79 - -80	(b) -	<70h 0
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-	09-24-78 11-12-78 09-10-80	10.64 10.68 11.27	(+) (+) (+)
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-	08-14-80	2.63	98
09367900	Black Springs Wash near Mexican Springs, N. Mex.	Lat 35°45'40", long 108°49'00", McKinley County, 2.5 miles south of Mexican Springs and 17 miles north of Gallup.	7.05	1954-80g	- -80	(e)	-
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	(e)	(+)
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-	09-10-80	3.36	(+)
09367940	Peña Blanca Arroyo near Newcomb, N. Mex.	Lat 36°21'39", long 108°43'09", San Juan County, on bridge on U.S. Highway 666, 5.2 miles north of Newcomb.	46.8	1967-80g	- -80	(e)	-

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								
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-	- -80	(b)	<150	
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-	- -78 - -79 - -80	(b) (b) (b)	(+) (+) (+)	
09386200	Carrizo Creek near Salt Lake, N. Mex.	Lat 34°31', long 109°01', Catron County, on left downstream wingwall of bridge, 1.3 miles east of New Mexico-Arizona State line and 15 miles west of Salt Lake.	af560	1957-	07-29-80	0.87	(+)	
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-	10-22-79	1.84	62	
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-	10-21-79	0.91	23	
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-	09-08-80	5.02	600	
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-	09-10-80	7.54	4,250	
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-	09-10-80	11.11	(+)	
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-	08-15-80	4.40	530	
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-	11-12-78 02-20-80	3.05 2.52	66h 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-	02-20-80	1.44	64	
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-	11-12-78 08-25-80	1.48 1.66	230h 40	

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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-	02-02-80	2.87	205
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-	- -80	(b)	(+)
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-	08-12-78 12-08-78 08-15-80	3.04 1.92 2.40	155h <100h 110

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. Those that are measurements of base flow are designated by an asterisk (*); measurements of peak flow by a dagger (†).

Discharge measurements made at miscellaneous sites during water year 1980

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Date	Discharge (ft ³)
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† 1966-79	10-17-79 11-14-79 12-07-79 1- 9-80 2- 4-80 3- 5-80 4- 1-80 5- 2-80 5-28-80 6-25-80 7-22-80 8-20-80 9-18-80	2.8 .1.6 b2.0 1.4 b3.5 1.4 1.2 39 14 0 2.3 .19 .31
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, and 24 miles north of Newkirk, NM.	7,417	1936-38† 1942-72† 1973-79	10-11-79 11- 3-79 12- 3-79 1- 9-80 1-22-80 2-12-80 4-16-80 5- 1-80 5-29-80 7- 3-80 7- 8-80 9-24-80	5.5 4.1 4.2 6.2 5.0 6.8 4.6 5.2 5.5 5.6 4.4 5.7
Canadian River a07227140	Arkansas River	Lat 35°23'35", long 103°02'30", in SW¼ sec.32, T.14 N., R.37 E., Quay County at New Mexico-Texas State line 14.7 miles north of Glenrio, NM	-	1969-79	10-18-79 11-16-79 12-19-79 1-10-80 2-21-80 3-19-80 4-17-80 8-13-80	9.5 22 9.8 14 281 6.4 8.7 0
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† 1972-79	11-14-79 1-10-80 5-20-80	*5.8 *6.4 *6.9
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	1953-79	11-30-79 1-30-80 3-25-80 5-21-80 6-17-80 7-31-80 8-19-80 9-16-80	*1.4 4.3 8.5 28 6.8 *2.0 12 30
Garrizozo 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 1953-79	11-30-79 1-30-80 3-25-80 5-21-80 6-17-80 7-30-80 8-19-80 9-16-80	3.5 4.1 3.4 3.9 3.2 3.4 3.9 3.8
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 1974-79	4-18-80 7-10-80	*14 *12

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Measurements at miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 1980

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Date	Discharge (ft ³)
Rio Grande basin--continued						
Castle Springs	Black River	Lat 32°11'59", long 104°15'13", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T.24 S., R.26 E., above mouth at Black River Village, Eddy County, 7.2 miles east of White City, NM.	-	1975-79	4-18-80 7-10-80	*1.1 *.66
Gila River basin						
Mangas Creek a09431100	Gila River	Lat 32°50'48", long 108°30'57", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.8, T.17 S., R.16 W., Grant County, 0.4 mile northwest of Mangas Springs, NM.	177	1972-79	11-15-79 1-16-80 3-20-80 5-22-80 7- 1-80 9- 8-80	*3.9 *4.3 *4.3 *3.5 *3.1 *3.7

* Base flow.

† Operated as a continuous record station.

a Also a water-quality continuing record station.

b Estimated.

A seepage or low-flow investigation along a water-course involves discharge measurements or observations of no flow at selected sites along a given reach of channel plus measurements of inflow or diversions, field commentary relative to observations, measurements of water temperature, and any other relative data. Measuring sites are described to the extent that they may be used again in subsequent investigations. At times temporary recording installations are used to supplement records at regular gaging stations in the study of flow trends. River mile determinations were made by scaling U.S.G.S. topographic maps.

Field work proceeds from the most upstream measuring site. Hydrographers may alternate measurements or the main reach may be divided and hydrographers assigned to each subreach with overlapping measurements made at the joining point (these would be listed together, the discharge above the line representing the last measurement by the hydrographer working the upper reach).

Indicated gains or losses may sometimes appear incompatible because of diurnal or other variations in flow or because of small inaccuracies in open-channel discharge measurements. Trends in a given reach may vary with the seasons or because of variable regulation. Successive investigations can serve to delineate a sustained trend or a progressive change in trend.

ARKANSAS RIVER BASIN

Vermejo River and Vermejo ditch seepage investigations

REACH.--On Vermejo River from the tributaries at the Colorado-New Mexico state line to the Vermejo ditch heading, a distance of 51.8 river miles, and on Vermejo ditch from the heading to the county highway bridge, a distance of 5.2 river miles.

PREVIOUS INVESTIGATIONS.--None.

DATE.--Sept. 16-17, 1980 with segments re-run on Oct. 8, 22, 1980.

WEATHER.--Weather was clear with light breezes during all three investigations. No appreciable precipitation was recorded in the area for at least a week prior to each investigation.

STREAMFLOW.--The Sept. 16-17 investigation was made by two hydrographers working downstream during the two-day period with an overlap site "above York Canyon" at river mile 50.3. One hydrographer generally made all of the measurements on the main stream while the second measured all inflow and diversions. This investigation was made during a period of near minimum fluctuation in discharge. A staff gage installed at the measuring site "above Vermejo Ranch diversion" (river mile 60.8) on Sept. 16 showed no fluctuation from 0900 hours through 1420 hours. The two measurements "above York Canyon" (river mile 50.3) showed a decrease of $0.13 \text{ ft}^3/\text{s}$ (2%) from 1630 hours Sept. 16 until 0845 hours Sept. 17. The shutdown of Kaiser Steel's pumping plant at river mile 49.5 the morning of Sept. 17 caused an indicated loss of $1.03 \text{ ft}^3/\text{s}$ at river mile 48.9, later disproved by the check measurements made on Oct. 8 which showed a very small indicated gain. This was the only site where flow was affected by the pumping plant shutdown. The regular gage "Vermejo River near Dawson" at river mile 28.2 showed a slight diurnal variation with a constant rate of discharge of $5.3 \text{ ft}^3/\text{s}$ from 1800 hours Sept. 16 until 0400 hours Sept. 17, then decreasing uniformly to $4.2 \text{ ft}^3/\text{s}$ by 1000 hours, remaining constant until 1600 hours and then uniformly increasing to $5.0 \text{ ft}^3/\text{s}$ by 2300 hours.

The Oct. 8 supplemental investigation in the vicinity of the mouth of York Canyon (river mile 50.2) was made during a period of continuous diversion to the Kaiser Steel York Canyon mine. These measurements confirmed that there was essentially no change through the reach from river mile 50.3 to river mile 48.9.

On Oct. 22 additional measurements were made on Vermejo River from the regular gage "near Dawson" at river mile 28.2 to the Vermejo ditch heading at river mile 20.5 to better define the affects of the Phelps Dodge diversion. Discharge at the "near Dawson" gage remained steady at $5.0 \text{ ft}^3/\text{s}$ from 2200 hours Oct. 21 until 0500 hours Oct. 22, decreasing uniformly to $3.3 \text{ ft}^3/\text{s}$ at 0900 hours, apparently the result of freezing temperatures. By 0930 hours the discharge had increased to $5.0 \text{ ft}^3/\text{s}$, remaining at that rate until early afternoon when it started to decrease. The effect of this dip in discharge does not appear to be great since the results of this investigation are in agreement with the series of measurements made earlier.

REMARKS.--The results of both the complete investigation and the supplements are rated as good ($\pm 10\%$). All canyons through the reach were checked; those not listed in the tabulation were dry.

Vermejo River and Vermejo ditch seepage investigations--Continued

River mile	Stream	Location	Time	Water temp °C	Discharge, in ft ³ /s			Time	Water temp °C	Discharge, in ft ³ /s		
					Main stream	Trib or diver.	Indic. gain or loss			Main stream	Trib or diver.	Indic. gain or loss
VERMEJO RIVER				Sept. 16, 1980								
72.3	North Fk. Vermejo R.	Lat 36°59'42", long 105°07'13", at Colorado-New Mexico state line	1100	-	0	-	-	-	-	-	-	-
70.7 (mouth)	Little Vermejo R.	Lat 36°59'52", long 105°08'21", at C.F. & I. gage 0.3 mi above Colorado-New Mexico state line, 1.8 mi upstream from mouth	0950	-	-	(+1.05)	-	-	-	-	-	-
70.7 (mouth)	do.	Lat 36°59'42", long 105°08'07", 75 ft below Colorado-New Mexico state line, 1.5 mi upstream from mouth	1025	10.0	-	+1.14	(+.09)	-	-	-	-	-
70.6 (mouth)	Ricardo Creek	Lat 36°59'39", long 105°09'34", 500 ft below Colorado-New Mexico state line, 3.0 mi upstream from mouth	1020	8.0	-	+4.61	-	-	-	-	-	-
70.6	Vermejo River	Lat 36°58'24", long 105°07'41", 100 ft below mouth of Ricardo Creek	1135	13.0	5.03	-	-.72	-	-	-	-	-
69.5	Gold Ck.	Lat 36°57'27", long 105°07'35", 100 ft above mouth	1145	7.0	-	+0.08	-	-	-	-	-	-
68.9 (mouth)	Un-named arroyo	Lat 36°57'01", long 105°07'33", at Penafior ruins 0.1 mi above mouth	1225	21.0	-	+0.01	-	-	-	-	-	-
68.8 (mouth)	Bernal Creek	Lat 36°56'57", long 105°07'28", at road crossing 500 ft above mouth	1230	-	-	0	-	-	-	-	-	-
68.7	Vermejo River	Lat 36°56'56", long 105°07'20", at "The Little Wall"	1250	17.0	5.30	-	+1.18	-	-	-	-	-
66.4 (mouth)	Wet Canyon	Lat 36°56'30", long 105°05'10", at road crossing 500 ft above mouth	1245	21.0	-	+0.03	-	-	-	-	-	-
64.7 (mouth)	Leandro Creek	Lat 36°55'29", long 105°04'29", 250 ft above mouth	1435	18.5	-	+0.93	-	-	-	-	-	-
61.6 (mouth)	Rock Creek	Lat 36°54'13", long 105°02'38", 25 ft above road and 75 ft above mouth	1340	19.0	-	+1.18	-	-	-	-	-	-
60.8	Vermejo River	Lat 36°54'00", long 105°01'53", 100 ft above first Vermejo Ranch diversion	1400	20.0	5.81	-	-.63	-	-	-	-	-
60.8 (head)	Vermejo Ranch diversion	Lat 36°54'00", long 105°01'52", 50 ft below headgate	1445	20.5	-	-.40	-	-	-	-	-	-
50.3	Vermejo River	Lat 36°49'27", long 104°54'34", 270 ft above mouth of York Canyon	1630	22.0	6.11	-	+0.70	-	-	-	-	-
				Sept. 17, 1980				Oct. 8, 1980				
50.3	do.	Lat 36°49'27", long 104°54'34", 270 ft above mouth of York Canyon	0845	11.0	5.98	-	-	0920	4.5	2.96	-	-
50.2 (mouth)	York Canyon	Lat 36°49'24", long 104°54'33", 100 ft above mouth	1020	14.0	-	+4.48	-	0955	5.5	-	+3.31	-
49.5	Kaiser diversion	Lat 36°49'17", long 104°54'11", at pumping plant	0630 to 0900	-	-	0	-	-	-	-	b-1.1	-
48.9	Vermejo River	Lat 36°48'57", long 104°53'50", 100 ft above road ford and below Kaiser diversion and all irrigation on Vermejo Ranch	0930	12.0	5.43	-	c-1.03	1030	10.0	2.21	-	+0.04
39.0	do.	Lat 36°45'16", long 104°49'23", 450 ft above mouth of Caliente Canyon	1155	17.0	5.15	-	-.28	-	-	-	-	-
38.9 (mouth)	Caliente Canyon	Lat 36°45'12", long 104°49'20", 60 ft above mouth	1210	21.0	-	+3.36	-	-	-	-	-	-
38.2 (mouth)	seep	Lat 36°44'44", long 104°48'57", from right bank at road crossing	1315	-	-	d+.005	-	-	-	-	-	-

Vermejo River and Vermejo ditch seepage investigations--Continued

River mile	Stream	Location	Time	Water temp °C	Discharge, in ft ³ /s			Time	Water temp °C	Discharge, in ft ³ /s			
					Main stream	Trib or diver.	Indic. gain or loss			Main stream	Trib or diver.	Indic. gain or loss	
VERMEJO RIVER--Continued				Sept. 17, 1980					Oct. 22, 1980				
28.2	Vermejo River	Lat 36°40'50", long 104°47'08", at regular gage (sta 07203000) 1.3 mi north of Dawson	1410	22.0	4.30	-	-1.22	0945	3.0	4.82	-	-	
27.8	Phelps Dodge diversion	Lat 36°40'36", long 104°47'22", 300 ft below headgate	1510	24.0	-	-4.78	-	1050	5.0	-	-4.65	-	
27.8	Vermejo River	Lat 36°40'40", long 104°47'23", 200 ft below road bridge and below Phelps Dodge diversion	1450	-	d.01	-	+4.49	1140	4.5	.72	-	+5.55	
26.1	do.	Lat 36°39'38", long 104°46'34", 200 ft above mouth of Rail Canyon	1455	-	0	-	-.01	1240	7.5	.41	-	-.31	
-	Phelps Dodge ditch	Lat 36°39'43", long 104°46'31", 100 ft above culvert under road and 200 ft above Rail Canyon	-	-	-	-	-	1325	9.5	-	(3.22)	(-1.43)	
26.0	Rail Canyon	Lat 36°39'34", long 104°46'34", at mouth	1500	-	-	0	-	1350	-	-	0	-	
25.1	Vermejo River	Lat 36°38'58", long 104°46'21", 0.4 mi below railroad bridge	1505	-	e0	-	0	-	-	-	-	-	
-	ditch lateral	Lat 36°38'45", long 104°46'03", from Phelps Dodge ditch at culvert at road 500 ft north of railroad crossing	1510	-	-	d.50	-	1405	-	-	0	-	
-	Phelps Dodge ditch	Lat 36°37'48", long 104°45'24", 10 ft above culvert at road crossing near Spring Canyon	-	-	-	-	-	1430	5.5	-	(2.84)	(-.38)	
20.6	Vermejo River	Lat 36°36'36", long 104°45'11", 200 ft above Vermejo ditch diversion	1535	23.5	1.81	-	+1.81	1515	6.0	1.61	-	+1.20	
20.5	do.	Lat 36°36'33", long 104°45'08", below Vermejo ditch diversion	1555	-	d.01	-	-1.80	1540	-	d.005	-	-1.60	
VERMEJO DITCH				Sept. 17, 1980					Oct. 22, 1980				
6.7	Vermejo ditch	Lat 36°36'34", long 104°45'07", at head	1535	23.5	1.80	-	-	1515	6.0	1.60	-	-	
6.7	Inflow	Lat 36°36'34", long 104°45'05", from culvert on left bank, 50 ft below heading	1515	22.0	-	+1.13	-	1550	-	-	0	-	
5.5	Vermejo River	Lat 36°36'08", long 104°44'04", 100 ft below U.S. Highway 64 bridge	1630	24.5	1.72	-	-.21	-	-	-	-	-	
3.1	Messick turnout	Lat 36°34'56", long 104°43'05", below headgate	1645	-	-	0	-	-	-	-	-	-	
1.5	Vermejo ditch	Lat 36°34'19", long 104°41'49", 100 ft above county road bridge	1725	-	1.36	-	-.36	-	-	-	-	-	
1.5	LaRoe turnout	Lat 36°34'19", long 104°41'48", below headgate	1740	-	-	0	-	-	-	-	-	-	
1.5	Pompeo, Porter & W.S. turnout	Lat 36°34'17", long 104°41'57", 0.2 mi below headgate	1740	-	-	-.07	-	-	-	-	-	-	

a From theoretical rating for 2-ft Parshall flume.

b Diversion rate as reported by Kaiser Steel.

c Indicated loss may be caused by the Kaiser diversion 0.6 mi upstream which normally diverts about 1.1 ft³/s and was operating until about 3 hours before measurement.

d Estimated.

e Seeps enter channel below this site.

NOTE.--Measurements of tributaries or diversions plus the associated indicated gains or losses are enclosed in parenthesis when they do not effect the gains or losses of Vermejo River.

RIO GRANDE BASIN

Santa Fe River seepage investigation

REACH.--On Santa Fe River from "below Twomile Reservoir" in Santa Fe to the gaging station "above Cochiti Lake" (station 08317200), a distance of 25.5 river miles.

PREVIOUS INVESTIGATIONS.--May 4, 1973 (published as "miscellaneous measurements"), June 18, 1973, July 3, 1973, June 28, 1979, July 5, 1979.

DATE.--June 24, 1980.

WEATHER.--Weather was favorable with no precipitation for 14 days prior to the run.

STREAMFLOW.--This investigation was made near the end of the spring runoff which began through this reach the night of May 7 or early morning of May 8, after filling the upstream reservoirs. Temporary recording gages were established "at Don Gaspar Street bridge" (river mile 30.6) and "below road ford near Santa Fe Municipal Airport" (river mile 20.3) to supplement the regular recording gage "above Cochiti Lake" (river mile 7.9). No attempt was made to determine the net effect of Acequia Madre, which diverts downstream from river mile 33.4, since several areas of return flow were noted between the point of diversion and river mile 31.1.

During the investigation discharge as recorded at the Don Gaspar gage showed a steady decrease in discharge from 2.6 ft³/s at 2400 hrs June 23 to 2.09 ft³/s at the time of the measurement (0730 hrs June 24). This condition probably continued downstream to river mile 23.5 where the Siler Road sewage plant effluent enters the river. Discharge from both sewage plants varies throughout the day and is dependent upon inflow to the plants. The gage "near Santa Fe Municipal Airport" was the overlap point of the two hydrographers making this investigation. The hydrographer who started at this site (0835 hrs) measured 2.95 ft³/s which was near minimum for the day, 2.1 ft³/s which had occurred about one half hour earlier. Discharge continued to increase during the morning to 5.06 ft³/s at 1110 hrs, the time the hydrographer working downstream to this site completed his measurement. Discharge then decreased to 2.9 ft³/s at 1930 hrs and continued at near this rate for the remainder of the day. The effects of discharge from the sewer plants was naturally dampened as measurements progressed downstream. Discharge at the "above Cochiti Lake" gage decreased from 4.8 ft³/s at 1200 hours to 3.5 ft³/s at 1700 hours, then increased to 3.8 ft³/s by 1900 hours and continued at near this rate for the remainder of the day.

REMARKS.--The results of the investigation are rated as good (+10%) upstream from the sewage plant inflow (river mile 23.5) and fair (+15%) below. All known sources of diversion or inflow were measured and included in this tabulation except those associated with Acequia Madre between river mile 33.4 and river mile 31.1.

River mile	Stream	Location	Time	Water temp °C	Discharge, in ft ³ /s		
					Main stream	Trib. or diver.	Indic. gain or loss
33.4	Santa Fe River	Lat 35°41'11", long 105°53'40", 300 ft upstream from Cerro Gordo road, below Twomile Reservoir	0615	13.0	3.18	-	-
31.1	do.	Lat 35°41'04", long 105°55'50", at Delgado St. bridge, Santa Fe	0650	15.0	2.44	-	-0.74
30.6	do.	Lat 35°41'07", long 105°56'27", at Don Gaspar St. bridge, Santa Fe	0730	13.5	2.09	-	-0.35
29.7	do.	Lat 35°41'18", long 105°57'14", at St. Francis Drive bridge, Santa Fe	0810	14.0	2.12	-	+0.03
29.0	do.	Lat 35°41'05", long 105°57'59", at Camino Alire bridge, Santa Fe	0845	16.0	1.98	-	-0.14
27.4	do.	Lat 35°40'18", long 105°59'12", at Camino Carlos Rael, Santa Fe	0925	17.0	1.14	-	-0.84
25.8	do.	Lat 35°39'36", long 106°00'43", at crossing nr San Isidro Cemetery, at Agua Fria	0950	19.5	.60	-	-0.54
24.2	do.	Lat 35°39'02", long 106°02'10", above old race track crossing, downstream from Agua Fria	1025	21.0	.58	-	-0.02
23.5	Sewage inflow (Siler Rd plant)	Lat 35°38'41", long 106°02'37", at mouth adjacent to State Hwy 22 at Agua Fria	1050	-	-	+0.27	-
20.5	Sewage inflow (Airport Rd plant)	Lat 35°37'49", long 106°05'22", at mouth nr Santa Fe Municipal Airport	1110	-	-	+3.61	-
20.3	Santa Fe River	Lat 35°37'43", long 106°05'33", below road ford nr Santa Fe Municipal Airport nr Santa Fe	1145 0835	23.0 17.5	5.06 2.95	- -	+0.60 -
17.6	do.	Lat 35°36'06", long 106°07'19", at road ford 0.4 mi north of Cieneguilla Church nr Cañon	0935	18.0	1.84	-	-1.11
15.5	do.	Lat 35°34'49", long 106°08'14", at community of Cañon	1035	15.5	2.85	-	+1.01
13.2	do.	Lat 35°33'27", long 106°08'59", above mouth of Cienega Creek at La Cienega	1205	24.5	3.66	-	+0.81
13.2	Cienega Creek	Lat 35°33'26", long 106°09'00", above mouth of Alamo Creek at La Cienega	1135	27.5	-	+1.10	-
13.2	Alamo Creek	Lat 35°33'25", long 106°09'00", at mouth at La Cienega	1135	-	-	0	-
-	ditch	Lat 35°32'49", long 106°13'41", on right bank adjacent to Sta 08317200	1350	-	-	0	-
7.9	Santa Fe River	Lat 35°32'49", long 106°13'41", at regular gage (Sta 08317200) at mouth of canyon above Cochiti Lake nr Pena Blanca	1410	26.5	4.13	-	+0.37

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 1979 TO SEPTEMBER 1980

RIO GRANDE BASIN

08405450 BLUE SPRINGS ABOVE DIVERSIONS, (LAT 32 11 07 LONG 104 16 50 10)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL (00940)
JAN 28...	1130	12	1560	7.7	17.0	12
APR 18...	1325	14	1470	7.7	22.0	--
JUL 10...	1550	13	1550	7.7	21.0	16

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	SPE- CIFIC CON- DUCT- ANCE	PH	TEMPER	TEMPER	OXYGEN,	HARD-	HARD-	CALCIUM	MAGNE-	SODIUM,	
		(CFS) (00061)	(MICRO- MHOS) (00095)	FIELD (UNITS) (00400)	ATURE, AIR (DEG C) (00020)	ATURE, WATER (DEG C) (00010)	DIS- SOLVED (MG/L) (00300)	NESS (MG/L) AS CACO3 (00900)	NONCAR- BONATE (MG/L) CACO3 (00902)	DIS- SOLVED (MG/L) AS CA (00915)	DIS- SOLVED (MG/L) AS MG (00925)	DIS- SOLVED (MG/L) AS NA (00930)	
NOV 29...	1230	E5.0	28000	5.6	6.0	13.0	.1	130	0	33	11	9200	
FEB 06...	1020	E2.5	9320	7.3	7.0	14.0	.2	880	760	230	75	1900	
JUN 03...	1510	E.75	18500	6.3	30.5	24.0	.1	340	65	42	56	5100	
SEP 04...	1130	E.50	18600	6.7	28.5	28.0	.0	500	0	87	69	5000	
DATE		SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L) AS K (00935)	ALKA- LINIT (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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N (00631)	PHOS- PHORUS, ORTHOPH- OSPHATE DISSOL. (MG/L) AS P (00671)	BORON, DIS- SOLVED (UG/L) AS B (01020)	IRON, DIS- SOLVED (UG/L) AS FE (01046)
NOV 29...	354	17	310	14000	580	19	48	24100	.02	1.600	350	26000	
FEB 06...	28	15	120	4500	350	3.7	48	7220	3.3	.010	9700	90	
JUN 03...	121	22	270	9700	750	.3	.6	15800	.00	.230	11000	1400	
SEP 04...	97	8.7	680	9900	420	45	19	16000	.00	.140	12000	750	

POWERPLANT ARROYO BELOW SAN JUAN POWERPLANT RESERVOIR, NM (LAT 36 47 06 LONG 108 26 26 10)
(LOCAL IDENTIFIER-30 N.15W,29.322)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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)
NOV 29...	1130	E3.0	6250	8.2	5.0	1.0	12.7	2300	2100	280	390	850
FEB 06...	1111	E.50	6770	8.3	10.0	6.0	12.8	2300	2000	210	420	870
JUN 04...	1120	E.50	6400	7.7	24.5	20.0	9.5	2600	2600	410	390	830
SEP 04...	1200	E.50	6100	8.2	28.5	18.0	10.3	2500	2300	360	380	740

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SAN JUAN RIVER BASIN - Continued

POWERPLANT ARROYO BELOW SAN JUAN POWERPLANT RESERVOIR, NM (LAT 36 47 06 LONG 108 26 26 10)
(LOCAL IDENTIFIER-30 N.15W.29.322)

DATE	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHOPH DISSOL. (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
NOV 29...	7.7	12	220	4100	130	.3	6.0	5940	9.3	.000	360	40
FEB 06...	8.0	9.3	210	3600	140	.4	3.2	5420	9.3	.000	340	50
JUN 04...	7.0	12	22	4000	110	.5	1.5	5790	5.6	.020	490	40
SEP 04...	6.5	9.2	210	3500	140	.7	3.6	5280	4.1	.000	410	50

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 (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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)
NOV 29...	1100	E5.0	6250	8.6	.0	5.0	9.9	1300	1200	370	86	1100
FEB 06...	1135	.96	7700	8.1	8.0	6.5	10.2	2200	2000	440	270	1400
JUN 04...	1050	3.4	13000	6.3	25.5	22.5	.2	550	350	62	96	3700
SEP 02...	1700	2.2	15000	6.0	30.0	29.5	.0	1300	1300	370	85	3100

DATE	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHOPH DISSOL. (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
NOV 29...	13	18	90	3600	190	14	15	5460	2.0	.100	3200	180
FEB 06...	13	11	210	4200	400	3.4	12	6900	8.7	.010	2600	60
JUN 04...	69	26	200	7400	320	18	9.5	11800	.00	.180	6300	700
SEP 02...	38	9.2	1	7300	390	40	39	11300	.00	.050	9300	330

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)	BED MAT. FALL DIAM. % FINER THAN (80158)	BED MAT. FALL DIAM. % FINER THAN (80159)	BED MAT. FALL DIAM. % FINER THAN (80160)	BED MAT. FALL DIAM. % FINER THAN (80161)	BED MAT. FALL DIAM. % FINER THAN (80162)
SEP 17...	1415	.00	8	12	33	83	100
17...	1420	.00	97	98	99	100	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SAN JUAN RIVER BASIN - Continued

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 (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	BICAR- BONATE (MG/L AS HCO3) (00440)	ALKA- LINITY (MG/L AS CACO3) (00410)	SAMPLE SOURCE (72005)
SEP 06...	1515	43	1500	8.0	400	330	40
				IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)		
			DATE	TIME			
		SEP 06...	1515	240000	27000		
			BED MAT. FALL DIAM.	BED MAT. FALL DIAM.	BED MAT. FALL DIAM.	BED MAT. FALL DIAM.	BED MAT. FALL DIAM.
		STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	% FINER THAN (80158)	% FINER THAN (80159)	% FINER THAN (80160)	% FINER THAN (80161)	% FINER THAN (80162)
DATE	TIME						
SEP 17...	1000	.00	26	76	98	100	--
17...	1005	.00	5	21	68	88	99
17...	1010	.00	18	39	79	99	100

09367932 HUNTER WASH TRIBUTARY AT ROAD CROSSING 5 MILES SOUTH OF BISTI, NM (LAT 36 15 33 LONG 108 15 06 00)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	BED MAT. FALL DIAM.	BED MAT. FALL DIAM.	BED MAT. FALL DIAM.	BED MAT. FALL DIAM.	BED MAT. FALL DIAM.	BED MAT. FALL DIAM.	BED MAT. FALL DIAM.	BED MAT. FALL DIAM.	BED MAT. FALL DIAM.
			% FINER THAN	% FINER THAN	% FINER THAN	% FINER THAN	% FINER THAN	% FINER THAN	% FINER THAN	% FINER THAN	% FINER THAN
			.062 MM (80158)	.125 MM (80159)	.250 MM (80160)	.500 MM (80161)	1.00 MM (80168)	2.00 MM (80169)	4.00 MM (80170)	8.00 MM (80171)	16.0 MM (80172)
SEP 17...	0910	.00	30	64	98	100	--	--	--	--	--
17...	0915	.00	15	23	49	64	66	70	78	92	100
17...	0920	.00	38	82	100	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

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 1979 TO SEPTEMBER 1980

RIO GRANDE BASIN

BARELAS BRIDGE PUMP STATION AT ALBUQUERQUE, NM (LAT 35 04 15 LONG 106 39 26 10)
(LOCAL IDENTIFIER - 10N.03E.30.224)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (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)	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)	
SEP 09...	1530	140	7.4	21.5	130	50	0	18	1.3	8.6	
DATE		SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
SEP 09...	.5	3.4	50	52	16	11	.1	7.5	98	.26	
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)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, OSPHATE TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, OSPHATE DISSOL. (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)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
SEP 09...	.22	.040	2.5	2.8	.440	.090	.150	40	39	9.8	
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)	
SEP 09...	1530	4	3	150	2	<1	50	30	27	7	
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, DIS- SOLVED (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)	
SEP 09...	40	230	5	.1	.0	0	0	190	8		
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, SUSP. TOTAL (PCI/L AS YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90) (80060)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90) (80060)	RADIUM 226, DIS- SOLVED (PCI/L METHOD (09511)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L) (80020)	
SEP 09...	1530	1.8	18	3.5	15	3.2	15	.08	.18		

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

RIO GRAND BASIN - Continued

BARELAS BRIDGE PUMP STATION AT ALBUQUERQUE, NM (LAT 35 04 15 LONG 106 39 26 10)
(LOCAL IDENTIFIER - 10N.03E.30.224) - Concluded

2,4,5-T SILVEX,
DATE TIME TOTAL TOTAL
(UG/L) (UG/L)
(39740) (39760)
SEP
09... 1530 .00 .00

SED.
SUSP.
SIEVE
DIAM.
% FINER
THAN
DATE TIME TEMPER- SEDI-
ATURE, MENT,
WATER SUS-
(DEG C) PENDED
(00010) (80154) .062 MM
SEP
09... 1530 21.5 305 77

08342000 BLUEWATER CREEK NEAR BLUEWATER, NM (LAT 35 17 40 LONG 108 01 40 00)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (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)
MAR 06...	1114	--	729	8.4	12.0	380	230	110	25	11
APR 18...	1230	950	310	7.8	6.0	160	46	47	9.4	5.5
19...	1532	488	300	7.8	11.5	--	--	--	--	--
30...	1605	32	410	8.2	4.0	--	--	--	--	--

DATE	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
MAR 06...	.2	1.6	150	240	5.3	.3	8.7	526	493	--
APR 18...	.2	1.7	110	50	2.2	.3	2.1	187	185	.27
19...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--

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)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHOPH- OSPHATE DISSOL. (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)
MAR 06...	.05	--	--	--	--	--	190	<10	4	--
APR 18...	.14	.180	3.3	3.8	.400	.040	30	--	--	48
19...	--	--	--	--	--	--	40	--	--	--
30...	--	--	--	--	--	--	--	--	--	--

DATE	TIME	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	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)
MAR 06...	1114	1	60	--	190	<1	0	6	<10	0
APR 18...	1230	--	--	--	30	--	--	--	--	--
19...	1532	--	--	60	40	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

RIO GRANDE BASIN - Continued

08342000 BLUEWATER CREEK NEAR BLUEWATER, NM (LAT 35 17 40 LONG 108 01 40 00) -Concluded

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	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, 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, DIS- SOLVED (UG/L AS ZN) (01090)
MAR 06...	4	.2	--	--	--	1	0	--	10
APR 18...	--	--	--	--	--	0	--	--	--
19...	--	--	0	0	1	1	--	4.0	--

DATE	TIME	GROSS ALPHA, BETA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, BETA, 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 (UG/L AS U) (09511)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
MAR 06...	1114	<7.6	--	<3.1	--	<3.1	--	--	1.5
APR 19...	1532	4.4	19	4.1	12	3.8	11	.07	--
30...	1605	5.5	1.9	3.7	1.4	3.5	1.3	.04	--

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE, WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. & FINER THAN .062 MM (70331)
APR 18...	1230	950	6.0	1400	3590	80
19...	1532	488	11.5	963	1270	66
30...	1605	32	4.0	53	4.6	88

COPPER CANYON STREAM 0.5 MILE WEST OF BUCKEYE MINE NEAR WATER CANYON CAMPGROUND, NM
(LAT 34 01 05 LONG 107 08 26 10)
(LOCAL IDENTIFIER - 03S.03W.27.322)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS 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)
SEP 18...	1415	339	8.6	15.0	160	20	54	6.1	7.9	.3	1.2

DATE	ALKA- LINITY (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 CONSTITUENTS, 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)
SEP 18...	140	36	5.0	.3	18	226	213	.00	20	20	4

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

RIO GRANDE BASIN -- Continued

COPPER CANYON STREAM 0.5 MILE WEST OF BUCKEYE MINE NEAR WATER CANYON CAMPGROUND, NM - Continued
(LAT 34 01 05 LONG 107 08 26 10)
(LOCAL IDENTIFIER - 03S.03W.27.322)

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)	
SEP 18...	1415	1	100	20	<1	0	2	
DATE	TIME	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)
SEP 18...	20	0	4	.0	0	0	20	
DATE	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 YT-90) (80050)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)			
SEP 18...	1415	6.0	2.2	2.1	2.5			

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, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
JAN 28...	1040	1.6	2010	7.6	12.0	20
APR 18...	1405	1.1	1960	7.7	20.0	--
JUL 10...	1110	.66	1910	7.6	23.0	24

SAN JUAN BASIN

ESCAVADO WASH AT HIWAY 56 BRIDGE NEAR CHACO CANYON TRADING POST, NM (LAT 36 06 14 LONG 107 57 20 10)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	BICAR- BONATE (MG/L AS HCO3) (00440)	ALKA- LINITY (MG/L AS CACO3) (00410)	SAMPLE SOURCE (72005)
SEP 11...	1802	E200	1000	6.9	410	340	40
11...	1803	E500	1000	6.9	400	330	40
DATE	TIME	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)				
SEP 11...	1802	320000	25000				
11...	1803	330000	25000				

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SAN JUAN BASIN - Continued

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) - Continued

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	BED MAT. FALL DIAM. % FINER THAN (0062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN (0125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN (0250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN (0500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN (1.00 MM (80162)	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)
SEP												
17...	1510	.00	11	32	77	94	--	--	97	98	99	100
17...	1520	.00	15	37	52	74	98	100	--	--	--	--

TSOSIE SWALE NEAR KIMBETO, NM (LAT 36 07 43 LONG 107 57 14 10)
(LOCAL IDENTIFIER-22N.11W.24.214)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	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)
NOV											
08...	0600	E2.0	285	7.1	38	0	12	2.0	45	3.2	6.6
08...	0915	E5.0	295	6.8	--	--	--	--	--	--	--
MAR											
03...	1202	--	402	7.3	52	0	18	1.7	57	3.4	3.9

DATE	TIME	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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 CONSTITUENTS, 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												
08...	--	--	--	71	26	6.4	.6	8.3	--	150	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
03...	174	0	143	42	5.4	.5	9.5	236	236	2.8	2.8	

DATE	TIME	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, ORTHOPH- OSPHATE DISSOL. (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 DIS- SOLVED (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
NOV											
08...	--	--	--	--	--	70	--	--	--	--	40
08...	--	--	--	--	--	--	--	--	--	--	40
MAR											
03...		.010	4.9	7.7	.050	--	50	10	6.0	33	--

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, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	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)
NOV										
08...	0915	7	--	1000	--	130	--	--	--	--
MAR										
03...	1202	13	1	1000	0	--	1	0	60	0

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SAN JUAN BASIN - Continued

TSOSIE SWALE NEAR KIMBETO, NM (LAT 36 07 43 LONG 107 57 14 10)
(LOCAL IDENTIFIER-22N.11W.24.214) - Continued

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)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI) (01132)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)
NOV 08...	--	--	--	--	77000	--	100	--	50	710
MAR 03...	30	1	120	6	95000	50	83	5	--	1400
DATE	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)	SELE- NIUM, TOTAL RECOV- ERABLE (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 08...	--	--	--	--	--	--	--	--	--	--
MAR 03...	10	.5	.0	6	3	0	0	450	10	

DATE	TIME	SED. SUSP. SIEVE DIAM. % FINER THAN 0.062 MM SAMPLE SOURCE
NOV 08...	0600	E2.0 4710 99 40
NOV 08...	0915	E5.0 4750 97 40

NAVAJO MINE 1973 RECLAMATION PLOT NEAR FRUITLAND, NM (LAT 36 40 42 LONG 108 27 14 10)
(LOCAL IDENTIFIER - 29N.15W.31.441)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (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)
MAR 05...	0830	188	6.8	4.5	57	54	19	2.4	11	.6	8.5

DATE	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
MAR 05...	4	0	3	57	2.1	.2	13	123	125	2.0

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)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHOPH- OSPHATE DISSOL. (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)
MAR 05...	2.2	.310	2.7	5.0	.590	.010	10	80	30	4.2

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	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)
MAR 05...	0830	500	40	17000	10	390	80

CHEMICAL ANALYSES OF ATMOSPHERIC PRECIPITATION

AH-SHI-SLE-PAH CENTRAL SNOWGAGE NEAR KIMBETO NM (LAT 36 09 22 LONG 107 55 22 31)

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	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)	
FEB 06...	1200	150	6.4	31	17	12	.1	.8	.1	.4	
DATE	TIME	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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 CONSTITUENTS, DIS- SOLVED (MG/L AS (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)
FEB 06...	0	27	35	1.0	.3	1.4	76	.98	<10	150	

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

		BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	
DATE	TIME							
FEB 06...	1200	60	<1	10	<3	<10	<10	
		LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
DATE	TIME							
FEB 06...	<10	<4	150	<10	66	<6.0	12000	

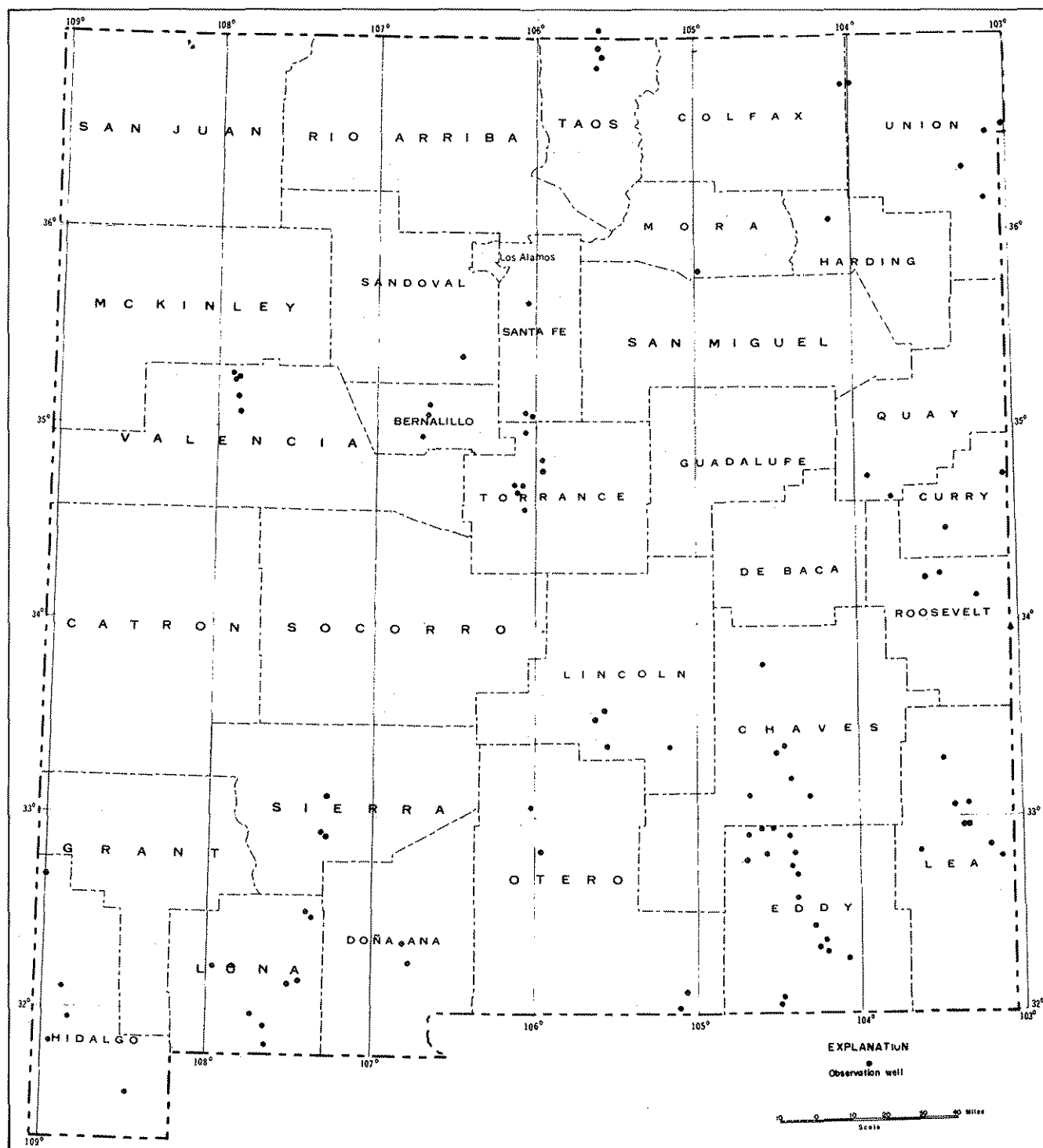


Figure 6 -- Map of New Mexico showing location of observation wells.

GROUND-WATER LEVELS

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 28	12.09
July 14	12.11

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 28	28.98
July 14	28.54

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, 13.77 ft (4.19 m) below land-surface datum, July 14, 1980; 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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 28	14.15
July 14	13.77

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Feb. 1	not measured
Aug. 28	289.58

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 (0.25 m), depth 324 (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 1979 TO SEPTEMBER 1980
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	66.25	62.22	59.74	57.86	56.51	55.75	61.73	63.32	66.08	69.69	71.83	70.11
10	65.48	61.75	59.46	57.55	56.17	55.97	62.37	64.15	67.35	70.93	71.69	68.32
15	64.45	61.32	59.12	57.37	55.99	56.76	61.68	63.79	67.56	71.52	69.58	66.78
20	63.89	60.87	58.81	57.30	55.75	57.98	62.06	63.08	68.51	71.14	68.73	66.05
25	63.34	60.44	58.50	56.88	55.77	59.47	63.19	62.97	68.07	71.41	68.26	65.67
eom	62.69	60.17	58.16	56.79	55.66	60.22	63.81	64.59	68.05	71.82	68.77	64.29

WTR YEAR 1980 MAX 55.57 Mar. 3, 1980

MIN 74.11 Aug. 8, 1980

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 19	not measured
Aug. 26	21.72

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 19	not measured
Aug. 26	80.28

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 1979 TO SEPTEMBER 1980
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	102.98	41.22	--	30.66	25.70	36.50	137.83	102.68	137.70	--	154.21	119.77
10	74.27	--	--	30.06	25.12	42.19	137.83	104.96	140.01	--	156.95	89.90
15	30.74	--	--	28.54	24.96	70.02	141.72	104.47	151.55	172.44	135.86	71.96
20	--	40.67	32.95	28.51	25.61	99.87	141.72	182.35	159.84	173.25	129.96	66.14
25	58.34	38.83	32.37	28.39	27.79	109.90	130.06	174.31	--	--	122.44	71.42
eom	54.38	37.89	31.34	28.16	32.57	132.08	124.08	178.42	--	--	114.16	57.03

WTR YEAR 1980 MAX 24.39 Feb. 9, 1980 MIN 189.12 May 17, 1980

GROUND-WATER LEVELS

CHAVES COUNTY

Roswell Basin

331524104245101. Local number, 12S.24E.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 1979 TO SEPTEMBER 1980
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	109.95	110.20	--	109.65	--	108.99	108.79	109.02	109.37	109.80	110.32	110.90
10	109.95	110.16	--	109.60	--	108.97	108.82	109.10	109.43	109.85	110.33	110.91
15	110.04	110.11	--	109.55	--	108.89	108.96	109.15	109.52	109.93	110.37	110.91
20	110.02	110.02	109.77	109.54	--	108.77	--	109.23	109.60	110.02	110.40	110.95
25	110.09	--	109.71	109.34	109.16	108.79	109.03	109.31	109.69	110.11	110.83	111.02
EOC	110.05	--	109.69	--	109.08	108.77	108.99	109.33	109.72	110.22	110.86	111.00

WTR YEAR 1980 MAX 108.70 Mar. 29 & Apr. 4, 9, 1980 MIN 111.02 Sept. 22, 25, 26, 1980

3310021042720. 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. (2.5 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 1979 TO SEPTEMBER 1980
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	112.32	44.61	29.12	--	19.21	34.19	141.65	111.82	145.86	--	--	125.40
10	102.03	42.05	27.95	--	18.17	39.40	154.35	118.50	162.80	--	--	95.44
15	76.07	37.81	25.89	21.02	18.61	70.00	119.57	108.50	--	--	--	72.72
20	70.28	34.73	25.17	20.77	18.78	108.64	121.90	82.70	--	--	--	64.59
25	58.86	32.37	24.43	19.67	21.98	129.60	150.96	74.90	--	--	--	72.42
EOC	52.35	30.44	--	19.50	28.30	--	134.25	119.83	--	--	116.48	53.97

WTR YEAR 1980 MAX 17.94 Feb. 13, 1980 MIN 198.30 July 18, 1980

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 23	not measured
Aug. 28	319.37

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 19	not measured
Aug. 26	20.15

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.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	28.26	19.68	5.17	3.51	4.58	25.92	64.80	51.63	71.94	85.17	--	--
10	22.01	8.01	4.62	7.27	3.38	40.31	74.62	51.63	86.03	85.75	--	--
15	20.99	6.68	5.51	9.04	8.67	49.78	43.91	52.95	--	--	--	--
20	15.87	6.34	5.20	10.26	8.80	46.83	55.42	29.54	--	--	--	--
25	18.50	5.97	3.82	3.16	8.85	59.23	69.36	27.33	--	--	--	--
eam	21.26	5.82	4.95	3.34	13.35	66.21	67.48	63.03	--	--	--	--

WTR YEAR 1980 MAX 2.55 Jan. 30, 1980

MIN 88.78 July 12, 1980

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 31	8.18
July 29	8.65

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, Fe. 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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 24	not measured
July 29	34.15

COSTILLA COUNTY (in Colorado)

Sunshine Valley

375655105354001. Local number, 1N.74W.33.332.

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 ft (41.41 m) below land-surface datum, Feb. 5, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Feb. 5	135.86
July 30	135.24

Clovis Area

3423581030936. 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, 277.60 ft (84.61 m) below land-surface datum, Jan. 8, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 8	277.60
Aug.	not measured

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 7	351.66
July 21	351.15

3437431032015. 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 (134.26 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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 7	446.77
July	not measured

3436151031238. 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, 433.78 ft (132.21 m) Jan. 7, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 7	433.78
July	not measured

GROUND-WATER LEVELS

601

CURRY COUNTY

Clovis Area

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 7	291.05
July 21	pumping

DONA ANA COUNTY

Rincon and Mesilla Valleys

3222101064830001. 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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 10	15.00
Aug. 27	11.54

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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 13.16 ft (4.01 m) below land-surface datum, Dec. 3, 1947; lowest, same as for period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 10	25.34
Aug. 28	25.05

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, 89.04 ft (27.13 m) below land-surface datum Jan. 30, 1979; 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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 30	not measured
Sept. 16	92.64

GROUND-WATER LEVELS

EDDY COUNTY

Roswell Basin

325638104274801. Local number, 16S.25E.11.113.

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, 39.9 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 TO SEPTEMBER 1980
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	60.97	60.72	60.16	59.80	59.83	59.79	60.72	--	62.06	62.44	--	62.58
10	60.95	60.62	60.08	59.74	59.78	59.88	60.92	--	62.14	62.50	--	62.50
15	60.98	60.53	60.03	59.76	59.76	60.01	61.10	--	62.23	--	--	62.37
20	60.96	60.43	59.96	59.87	59.73	60.15	61.29	61.98	62.30	--	--	62.20
25	60.92	60.33	59.91	59.86	59.76	60.30	--	61.94	62.35	--	--	62.03
eom	60.81	60.26	59.85	59.87	59.77	60.50	--	61.99	62.39	--	62.61	61.86

WTR YEAR 1980 MAX 59.73 Feb. 20, 1980

MIN 62.66 Aug. 26, 1980

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 18	not measured
Sept. 16	110.68

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, 106.75 ft (32.53 m) below land-surface datum, Sept. 16, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 23	not measured
Sept. 16	106.75

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.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
DAILY HIGHEST WATER LEVEL, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	--	--	119.02	--	--	91.31	134.85	141.01	128.68	--	--	173.58
10	--	128.37	117.97	--	--	95.82	139.23	140.78	--	--	186.08	159.63
15	--	126.36	117.62	--	--	102.66	130.37	138.54	--	--	175.06	145.90
20	--	124.11	--	--	86.62	107.15	145.49	130.67	--	--	172.46	141.78
25	--	122.04	--	--	87.92	115.04	147.50	131.69	--	--	169.19	140.38
eom	--	120.66	--	--	90.22	125.40	147.49	145.82	--	--	165.71	130.76

WTR YEAR 1980 MAX 86.62 Feb. 20, 1980

MIN 192.05 Aug. 8, 1980

EDDY COUNTY

Roswell Basin

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.

WATER LEVEL IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	134.09	131.02	--	123.33	120.85	118.85	123.37	127.52	129.46	133.85	137.80	139.23
10	133.70	130.28	--	122.81	120.23	118.78	124.38	128.04	130.47	134.50	138.25	139.25
15	133.40	129.61	--	122.36	119.86	118.86	124.63	128.43	131.34	135.25	138.59	138.60
20	133.12	128.79	125.12	122.16	119.42	119.45	125.34	128.24	132.03	135.86	139.02	138.06
25	132.66	128.05	124.56	121.49	119.40	120.45	126.06	128.08	132.63	136.87	139.19	137.72
eom	131.99	127.40	123.91	121.45	118.85	121.73	126.67	128.58	133.22	137.51	139.02	136.84

WTR YEAR 1980 MAX 118.67 Mar. 11, 1980 MIN 139.25 Sept. 10, 1980

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, 120.05 ft (36.6 m) below land-surface datum, Sept. 23, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	119.32	119.45	--	119.51	119.63	119.58	119.52	119.58	119.64	119.72	119.84	119.90
10	119.32	119.51	--	119.46	119.49	119.60	119.48	119.55	119.64	119.72	119.82	119.88
15	119.36	119.50	--	119.54	119.56	119.54	119.57	119.58	119.66	119.71	119.82	119.84
20	119.38	119.46	119.44	119.59	119.56	119.61	119.57	119.58	119.70	119.73	119.86	119.87
25	119.42	119.44	119.51	119.39	119.65	119.55	119.62	119.65	119.72	119.78	119.86	119.91
eom	119.52	119.41	119.54	119.67	119.52	119.50	119.55	119.64	119.67	119.83	119.83	119.94

WTR YEAR 1980 MAX 119.24 Oct. 29, 1979 MIN 120.50 Mar. 1, 1980

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 1979 TO SEPTEMBER 1980
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	22.01	22.04	21.36	21.39	21.24	21.13	21.86	22.12	23.18	23.94	24.31	23.89
10	22.05	21.95	21.43	21.22	21.09	21.31	22.07	22.11	23.00	24.11	24.23	23.51
15	22.06	22.06	21.45	21.26	21.05	21.47	21.93	22.24	23.09	24.03	23.52	23.20
20	22.10	21.94	21.40	21.41	20.97	21.61	22.04	22.47	23.32	24.05	23.56	23.10
25	22.21	21.90	21.41	21.12	21.23	21.52	22.22	22.80	23.67	24.34	23.76	23.07
eom	21.99	21.57	21.44	21.34	21.09	21.57	22.21	23.17	23.96	24.39	23.77	21.56

WTR YEAR 1980 MAX 20.97 Feb. 20, 1980 MIN 24.39 July 31, 1980

GROUND-WATER LEVELS

EDDY COUNTY

Carlsbad Area

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 22	Not measured
Sept. 18	14.85

322712104074501. 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 1979 TO SEPTEMBER 1980
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	93.87	93.94	--	--	--	--	94.32	94.60	95.68	96.41	96.73	96.38
10	93.95	93.91	--	--	--	--	94.49	94.53	95.32	96.47	96.64	95.99
15	93.90	94.00	--	--	--	--	94.32	94.68	95.48	96.50	95.97	95.73
20	93.93	93.85	--	--	--	94.04	94.51	94.98	95.81	96.56	96.05	95.55
25	94.13	93.83	--	--	--	93.93	94.57	95.22	96.12	96.77	96.24	95.55
com	93.88	--	--	--	--	94.00	94.63	95.64	96.37	96.87	96.30	94.44

WTR YEAR 1980 MAX 93.67 Mar. 26, 1980

MIN 96.87 July 31, 1980

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.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	198.00	195.66	190.01	184.36	180.11	176.84	178.63	184.31	187.36	190.41	194.59	--
10	197.99	194.80	189.00	183.52	179.33	176.12	179.54	183.75	187.91	191.20	193.58	--
15	197.77	194.00	188.16	182.78	178.83	176.24	180.54	183.89	188.01	191.52	193.40	--
20	197.30	192.98	187.20	182.18	178.09	177.14	181.35	183.80	188.04	192.17	193.94	193.86
25	196.87	191.94	186.30	181.21	177.84	177.82	182.33	185.05	188.57	192.98	195.18	193.70
com	196.22	191.09	185.31	180.81	177.24	177.86	183.25	186.35	189.41	194.04	--	191.10

WTR YEAR 1980 MAX 175.95 Mar. 12, 1980

MIN 198.04 Oct. 1, 1979

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), cased.

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 17	not measured
Sept. 18	58.17

EDDY COUNTY

Carlsbad Area

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.

PERIOD OF RECORD.--Apr. 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.05 ft (12.81 m) below land-surface datum, Jan. 24, 1979; 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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 24	not measured
Sept. 17	54.28

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.--1976.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 82.92 ft (25.27 m) below land-surface datum, Jan. 28, 1976; lowest measured, 83.39 ft (25.36 m) below land-surface datum, July 28, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 82.16 ft (24.88 m) below land-surface datum, June 10, 1969; lowest measured, same as period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 28	83.36
July 28	83.39

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 10	10.37
Aug. 6	13.08

Animas Valley

320700108515001. Local number, 25S.20W.24.313.

LOCATION.--Lat 32°07'00", long 108°51'50", Hydrologic Unit 15040003.

Owner: Rudiger and Jundt.

AQUIFER.--Bolson deposits.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 358 ft (109 m), cased to 320 ft (97.5 m).

DATUM.--Land-surface datum is 4,221.43 ft (1,286.69 m) above mean sea level. Measuring point: Top of casing, 0.43 ft (0.13 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.43 ft (12.93 m) below land-surface datum, Apr. 1, 1948; lowest measured, 118.23 ft (36.03 m) below land-surface datum, Aug. 22, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 3	not measured
Aug. 4	118.01

GROUND-WATER LEVELS

HIDALGO COUNTY

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 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, 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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 131.90 ft (40.20 m) below land-surface datum, July 29, 1949; lowest measured, same as period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 5	not measured
Aug. 4	190.22

San Simon Creek Valley

315010108570001. Local number, 28S.21W.30.222.

LOCATION.--Lat 31°50'10", long 108°57'00", Hydrologic Unit 15040006.

Owner: C. L. Johnston.

AQUIFER.--Bolson deposits.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 8 in (0.20 m), depth 471 ft (143 m), cased to 471 ft (143 m).

DATUM.--Altitude of land-surface datum is 4,440 ft (1,355 m). Measuring point: Hole in west side of casing, 0.70 ft (0.21 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 112.62 ft (34.33 m) below land-surface datum,

Jan. 19, 1971; lowest measured, 122.94 ft (37.37 m) below land-surface datum, Aug. 4, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 110.88 ft (33.80 m) below land-surface datum, Jan. 15, 1969; lowest measured, same as period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 1	122.24
Aug. 1	169.24A

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, 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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level, same as period of record; lowest, 79.37 ft (24.19 m) below land-surface datum, Sept. 3-4, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 24	45.58

LEA COUNTY

Tatum-Lovington-Hobbs Area

331740103285001. Local number, 12S.34E.11.413.

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 3	33.38
July 22	33.32

LEA COUNTY

Tatum-Lovington-Hobbs Area

330325103245501. Local number, 14S.35E.33.433.

LOCATION.--Lat 33°03'25", long 103°24'55", Hydrologic Unit 12080003.

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 3	45.72
July 22	46.13

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 3	66.62
July 22	66.73

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; 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 1979 TO SEPTEMBER 1980
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	---	65.11	---	65.02	---	---	---	65.38	65.41	65.50	65.61	65.64
10	---	65.10	---	---	---	---	---	65.39	65.41	65.53	65.61	65.65
15	---	65.09	---	---	---	---	65.34	65.40	65.41	65.54	65.62	65.65
20	---	---	---	---	---	---	65.38	65.40	65.41	65.54	65.63	65.65
25	---	---	---	---	---	---	65.35	65.40	65.48	65.59	65.63	65.65
eam	65.10	---	---	---	---	---	65.36	65.40	65.48	65.61	65.60	65.80

WTR YEAR 1980 MAX 65.02 Jan. 4, 1980 MIN 65.80 Sept. 27, 1980

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 4	75.12
July 22	not measured

GROUND-WATER LEVELS

LEA COUNTY

Tatum-Lovington-Hobbs Area

324947103371001. Local number, 17S.33E.13.341.

LOCATION.--Lat 32°49'47", long 103°37'10", Hydrologic Unit 12080003.

Owner: Potash Co. of America.

AQUIFER.--Ogallala Formation of Pliocene Age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 252 ft (76.8 m), cased to 252 ft (76.8 m).

DATUM.--Altitude of land-surface datum is 4,124 ft (1,257 m). Measuring point: Top of casing, 1.10 ft. (0.34 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 146.00 ft (44.50 m) below land-surface datum, Jan. 21, 1953; lowest measured, 173.97 ft (53.02 m) below land-surface datum, Sept. 30, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	172.18	172.47	172.64	172.80	173.02	173.19	173.23	173.48	173.60	173.68	173.82	173.83
10	172.46	172.54	172.61	172.82	172.92	173.22	173.40	173.45	173.65	173.69	173.80	173.84
15	172.43	172.55	172.61	173.00	173.02	173.25	173.28	173.54	173.60	173.69	173.83	173.85
20	172.32	172.61	172.90	172.98	173.03	173.30	173.39	173.59	173.65	173.71	173.82	173.91
25	172.44	172.64	172.89	173.02	173.14	173.20	173.32	173.55	173.65	173.69	173.84	173.92
com	172.40	172.72	172.82	173.03	173.08	173.12	173.33	173.60	173.65	173.75	173.86	173.97

WTR YEAR 1980 MAX 172.18 Oct. 5, 1979 MIN 173.97 Sept. 30, 1980

325132103112501. Local number, 17S.38E.7.111a.

LOCATION.--Lat 32°51'32", long 103°11'25", Hydrologic Unit 12080003.

Owner: L. R. Seblings.

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), cased.

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 3	69.84
July 22	74.15

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, 56.17 ft (17.12 m) below land-surface datum, July 22, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 3	55.21
July 22	56.17

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Feb.	not measured
Aug. 20	40.55

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.--Manos 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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 31	37.73
Aug. 20	38.58

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 31	58.63
Aug. 20	60.34

332157105094101. Local number, 11S.18E.16.333.

LOCATION.--Lat 33°21'57", long 105°09'41", Hydrologic Unit 13060008, 0.4 mi (0.6 km) south of Picacho Bridge on east of Casey Canyon Road.

Owner: Lincoln County Limestone 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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 31	49.93
Aug. 20	52.04

LUNA COUNTY

Mimbres Valley

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, 166.04 ft (50.60 m) below land-surface datum, Aug. 5, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 16	161.46
Aug. 5	166.04

GROUND-WATER LEVELS

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), cased.

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 1979 TO SEPTEMBER 1980
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	107.41	106.98	106.28	106.43	106.38	106.26	107.42	108.87	--	109.85	110.40	110.13
10	107.40	106.83	106.40	106.34	106.35	106.25	107.57	109.01	--	109.99	110.38	109.84
15	107.34	106.87	106.47	106.38	106.39	106.36	108.00	109.19	--	110.07	110.44	109.59
20	107.12	106.73	106.38	106.44	106.31	106.64	108.17	109.23	109.64	110.44	110.44	109.28
25	107.08	106.61	106.50	106.15	106.49	106.80	108.57	--	109.75	110.24	110.38	109.10
com	107.03	106.58	106.46	106.57	106.22	107.06	108.72	--	109.83	110.34	110.17	108.85

WTR YEAR 1980 MAX 106.10 Feb. 7, 1980 MIN 110.47 Aug. 19, 1980

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 3	183.66
Aug. 5	183.75

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 8	54.65
Aug. 6	117.66

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: MP 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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 8	90.41
Aug. 6	no access

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, 116.82 ft (35.60 m) below land-surface datum, Aug. 21, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 4	90.09
Aug. 5	116.21

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 4	36.60
Aug. 5	not measured

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, 10.14 ft (3.13 m) below land-surface datum, Aug. 5, 1980; 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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 7	12.15
Aug. 5	10.14

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), cased. 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.

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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 4.40 ft (1.33 m) below land-surface datum Mar. 25, 1969; lowest measured, 6.86 ft (2.09 m) below land-surface datum, Aug. 22, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 28	6.80
July 27	4.54

OTERO COUNTY

Tularosa-Alamogordo Area

330324106011201. Local number, 14S.16E.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, diameter 17 in (0.43 m), depth 230 ft (70.1 m), 16 in (0.41 m) to 14 in (0.36 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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Feb. 15	120.18
July	pumping

324853105582501. Local number, 17S.9E.24.343.

LOCATION.--Lat 32°48'53", long 105°58'25", Hydrologic Unit 13050003.

Owner: U.S. Air Force.

AQUIFER.--Bolson deposits.

WELL CHARACTERISTICS.--Drilled public supply water-table well, diameter 10 in (0.25 m), depth 236 ft (71.9 m), cased to 236 ft (71.9 m).

DATUM.--Altitude of land-surface datum is 4,144 ft (1,263 m). Measuring point: Top of 1 1/2 in (3.8 cm) pipe with screw plug on south side of concrete base, 2.10 ft (0.64 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.42 ft (18.72 m) below land-surface datum, Apr. 6, 1960; lowest measured, 84.16 ft (25.65 m) below land-surface datum, July 20, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Feb. 15	76.32
Sept. 22	82.18

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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 33.64 ft (10.65 m) below land-surface datum, Jan. 15, 1957; lowest measured, same as period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 24	not measured
Sept. 17	59.50

QUAY COUNTY

House Area

343810103463001. Local number, 5N.30E.18.331.

LOCATION.--Lat 34°38'10", long 103°46'30", Hydrologic Unit 13060004.

Owner: W. C. and H. J. Lee.

AQUIFER.--Ogallala Formation of Pliocene Age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 75 ft (22.9 m), cased to 60 ft (18.3 m).

DATUM.--Altitude of land-surface datum is 4,640 ft (1,414 m). Measuring point: Top of concrete pump base, 0.50 ft (0.15 m) above land-surface datum.

PERIOD OF RECORD.--May 1944 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.76 ft (10.60 m) below land-surface datum, Mar. 28, 1946; lowest measured, 51.49 ft (15.69 m) below land-surface datum, Aug. 11, 1969.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 9	44.66
July 21	no access

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 9	96.46
July 21	99.54

ROOSEVELT COUNTY

Portales Valley

3418521030907. 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, 182.05 ft (55.48 m) below land-surface datum, Jan. 8, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 8	182.05
July	not measured

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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 66.78 ft (20.35 m) below land-surface datum, Jan. 17, 1961; lowest measured, same as period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 9	86.66
July 21	91.75

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 (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, 91.42 ft (27.86 m) below land-surface datum, July 21, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 7	83.85
July 21	91.42

GROUND-WATER LEVELS

ROOSEVELT COUNTY

Portales Valley

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 7	44.22
July 21	46.36

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 5	97.44
July 21	pumping

SANDOVAL COUNTY

352235106282401. Local number, 13N.4E.12.112.

LOCATION.--Lat 35°22'35", long 106°28'24", Hydrologic Unit 13020201.

Owner: John Bowers.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.31 m), depth 50 ft (15.2 m), cased.

DATUM.--Altitude of land-surface datum is 5,130 ft (1,553 m). Measuring point: Top of casing, 0.50 ft (0.15 m) above land-surface datum.

PERIOD OF RECORD.--1976

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 22.04 ft (6.70 m) below land-surface datum, Aug. 17, 1978;

lowest, 25.94 ft (7.89 m) below land-surface datum, Jan. 17, 1977.

WATER YEAR, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 29	23.14
July 14	22.39

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, 143.98 ft (43.76 m) below land-surface datum, Aug. 21, 1978.

WATER YEAR, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 31	127.91
Aug. 28	pumping

SANTA FE COUNTY

Estancia Valley

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 ft (32.48 m) below land-surface datum, Sept. 25, 1979.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 55.13 ft (16.80 m) below land-surface datum, Feb. 18, 1949; lowest measured, same as period of record.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 30	100.15
Aug. 28	pumping

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), cased.

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 1	248.44
Aug. 13	248.78

SIERRA COUNTY

Hot Springs Area

3310021071500. 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: 1 1/2 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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Feb. 20	63.53
Aug.	not measured

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 1979 TO SEPTEMBER 1980
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	30.28	30.91	31.74	32.80	34.00	34.86	35.68	36.33	36.95	37.58	38.16	38.64
10	30.35	31.03	31.89	33.02	34.16	35.00	35.79	36.43	37.10	37.68	38.25	38.72
15	30.42	31.17	32.05	33.27	34.30	35.13	35.90	36.51	37.19	37.78	38.33	38.19
20	30.52	31.29	32.18	33.51	34.45	35.27	36.02	36.62	37.29	37.88	38.40	36.86
25	30.65	31.44	32.38	33.67	34.61	35.39	36.15	36.71	37.38	37.96	38.47	35.85
com	30.79	31.60	32.54	33.89	34.70	35.55	36.23	36.84	37.48	38.07	38.53	35.07

WTR YEAR 1980 MAX 30.24 Oct. 1, 1979 MIN 38.78 Sept. 11, 1980

GROUND-WATER LEVELS

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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 11.30 ft (3.44 m) below land-surface datum, Apr. 17, 1947; lowest measured, same as period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 10	23.72
Aug. 8	23.46

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Feb. 5	75.96
July 30	75.89

365410105354501. 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, 10 ft (3.1 m) above top of casing, 1 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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Feb. 5	81.40
July 30	82.27

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.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 3	107.03
July 9	111.08

TORRANCE COUNTY

Estancia Valley

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.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 7	118.93
July 9	well being pumped

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 9	71.16
July 9	80.26

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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 5.07 ft (1.55 m) below land-surface datum, May 4, 1949; lowest measured, same as period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 9	11.90
July 9	pumping

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 at concrete slab level which is 0.2 ft (0.06 m) above land-surface datum.

REMARKS.--Old CO₂ 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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 10	110.32
July 9	110.30

GROUND-WATER LEVELS

TORRANCE COUNTY

Estancia Valley

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, 106.87 ft (32.48 m) below land-surface datum, Aug. 3, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water-level measured, 50.12 ft (15.28 m) below land-surface datum, May 28, 1947; lowest measured, same for period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 28	101.93
July 9	not measured

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, 72.08 ft (21.96 m) below land-surface datum, Jan. 30, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 30	72.08
July 9	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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 29	146.20
July 28	146.22

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, 87.88 ft (26.67 m) below land-surface datum, Jan. 31, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water-level measured, 81.38 ft (24.80 m) below land-surface datum, May 8, 1968; lowest, same as period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 31	87.88
July 28	86.08

GROUND-WATER LEVELS

619

UNION COUNTY

Clayton Area

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Jan. 30	146.16
July 29	166.99

VALENCIA 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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Feb. 14	31.58
July 15	30.32

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Feb. 14	not measured
July 15	34.61

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Feb. 14	101.81
July 15	90.23

GROUND-WATER LEVELS

VALENCIA 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.

WATER LEVEL, IN FEET BELOW LAND-SURFACE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Feb. 14	119.53
July 15	114.09

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, 85.40 ft (26.03 m) below land-surface datum, July 15, 1980; 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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
Feb. 14	86.76
July 15	85.40

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; 112 SNFF-Cenozoic, Quaternary, Bolson Fill; 112 SNFF-Cenozoic, Quaternary, Pleistocene, Santa Fe Group; 120 DTIL-Cenozoic, Tertiary, Datil Formation; 120 VLCC-Cenozoic, Tertiary, Volcanic Rocks; 122 PPTS-Cenozoic, Miocene, Popotosa Formation; 210 MNCS-Mesozoic, Cretaceous, Mancos Shale; 211 DKOT-Mesozoic, Upper Cretaceous, Dakota Sandstone; 211 DLCC-Mesozoic, Upper Cretaceous, Dilco Coal Member of Crevasse Canyon Formation of Mesaverde Group; 211 FRLD-Mesozoic, Upper Cretaceous, Fruitland Formation; 211 MENF-Mesozoic, Upper Cretaceous, Menefee Formation; 211 MVRD-Mesozoic, Upper Cretaceous, Mesaverde Group; 211 PCCF-Mesozoic, Upper Cretaceous, Pictured Cliffs Sandstone; 221 MRSN-Mesozoic, U Jurassic, Morrison Formation; 231 CHNL-Mesozoic, U Triassic, Chinle Formation; 310 GLRT-Paleozoic, Permian, Glorieta Sandstone Member of San Andres Formation of Manzano Group; 310 MGNT-Paleozoic, Permian, Magenta Member of Rustler Formation; 312 CLBR-Paleozoic, Permian, Ochoan, Culebra Dolomite Member of Rustler Formation; 312 RSLR-Paleozoic, Permian, Ochoan, Rustler Formation; 312 RSLRL-Paleozoic, Permian, Ochoan, Rustler Formation, Unnamed Lower Member; 313 SADG-Paleozoic, Permian, Guadalupian, San Andres Limestone and Glorieta Sandstone; 313 SADR-Paleozoic, Permian, Guadalupian, San Andres Limestone of Manzano Group; 318 ABO U-Paleozoic, Lower Permian, Leonardian, ABO Sandstone (Upper Tongue); 325 MDER-Paleozoic, Middle Pennsylvanian, Des Moinesian, Mader Limestone.

REMARKS.--Ground Water sites in this table are segregated by county which appear alphabetically. The sites are then listed in ascending local identifiers.

BERNALILLO 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)
NEW ATRISCO NO.5	350418106412201		001	GW	80-05-09	1100	--	12.80	---	---
NEW MEXICO UTILITIES NO.	351302106424501		001	GW	80-05-02	1515	112SNTF	660.00	1350	663
WALKER WELL NO.1	351025106323801		001	GW	80-04-26	1300	112SNTF	856.00	1800	960
WALKER WELL NO.2	351023106321301		001	GW	80-03-24	1230	112SNTF	688.00	1773	852
10N.03E.32.413 SAN JOSE	350255106384401		001	GW	80-06-25	0945	--	---	---	---
10N.03E.32.421 SAN JOSE	350304106383401		001	GW	80-06-25	1025	--	---	---	---
10N.03E.32.444 AMERIGAS	350238106382401		001	GW	80-06-25	1135	--	---	---	---
10N.03E.33.231 MILES NO.	350313106374701		001	GW	80-06-25	0855	--	---	---	---
LOCAL IDENT- I- FIER	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	FLOW RATE, INSTAN- TANEOUS (GPM) (00059)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	COLOR (PLAT- INUM COBALT UNITS) (00080)
NEW ATRISCO NO.5	80-05-09	1271	1258	255	2400	3280	520	8.9	32.0	0
NEW MEXICO UTILITIES NO.	80-05-02	1363	---	---	1200	2550	485	7.7	23.0	0
WALKER WELL NO.1	80-04-26	1800	---	---	1440	1300	305	7.5	27.0	0
WALKER WELL NO.2	80-03-24	1785	---	---	36	3020	580	7.7	29.0	0
10N.03E.32.413 SAN JOSE	80-06-25	---	---	---	---	---	465	7.4	26.0	---
10N.03E.32.421 SAN JOSE	80-06-25	---	---	---	---	---	400	7.6	26.0	---
10N.03E.32.444 AMERIGAS	80-06-25	---	---	---	---	---	595	7.1	23.5	---
10N.03E.33.231 MILES NO.	80-06-25	---	---	---	---	---	400	7.5	25.0	---
LOCAL IDENT- I- FIER	DATE OF SAMPLE	TUR- BID- ITY (NTU) (00076)	HARD- NESS (MG/L AS CACO3) (00906)	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 (MG/L AS CACO3) (00410)
NEW ATRISCO NO.5	80-05-09	.60	19	0	6.3	.8	120	12	1.9	100
NEW MEXICO UTILITIES NO.	80-05-02	.70	43	0	13	2.6	87	5.8	6.4	130
WALKER WELL NO.1	80-04-26	50	84	0	31	1.5	33	1.6	2.6	100
WALKER WELL NO.2	80-03-24	.60	120	0	37	5.5	74	3.0	5.9	130
10N.03E.32.413 SAN JOSE	80-06-25	---	120	21	34	7.3	48	1.9	8.1	94
10N.03E.32.421 SAN JOSE	80-06-25	---	98	4	28	6.7	40	1.8	8.8	94
10N.03E.32.444 AMERIGAS	80-06-25	---	270	78	84	14	30	.8	6.2	190
10N.03E.33.231 MILES NO.	80-06-25	---	120	5	34	7.2	33	1.3	6.9	110

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

BERNALILLO COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	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)	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 DIS- SOLVED (MG/L AS N) (00631)
NEW ATRISCO NO.5	80-05-09	.2	130	21	.9	46	394	--	--	1.6
NEW MEXICO UTILITIES NO.	80-05-02	--	90	10	1.0	66	361	--	--	1.5
WALKER WELL NO.1	80-04-26	.2	21	18	1.0	31	202	--	--	.55
WALKER WELL NO.2	80-03-24	.0	37	86	1.1	41	366	--	--	.06
10N.03E.32.413 SAN JOSE	80-06-25	.0	65	36	.7	71	329	.39	.010	.40
10N.03E.32.421 SAN JOSE	80-06-25	.0	47	33	.0	78	300	.41	.010	.42
10N.03E.32.444 AMERIGAS	80-06-25	.2	110	38	.3	50	447	.01	.020	.03
10N.03E.33.231 MILES NO.	80-06-25	.0	34	35	.5	71	289	.26	.020	.28

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	PHOS- PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P) (00671)	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)
NEW ATRISCO NO.5	80-05-09	--	--	--	20	20	--	<1	20	1
NEW MEXICO UTILITIES NO.	80-05-02	--	--	--	23	40	--	<1	0	0
WALKER WELL NO.1	80-04-26	--	--	--	18	80	--	<1	0	1
WALKER WELL NO.2	80-03-24	--	--	--	32	90	--	<1	0	0
10N.03E.32.413 SAN JOSE	80-06-25	.010	.19	.000	21	100	170	<1	0	0
10N.03E.32.421 SAN JOSE	80-06-25	.030	.43	.000	21	100	110	<1	10	1
10N.03E.32.444 AMERIGAS	80-06-25	.080	1.0	.010	3	200	120	<1	0	1
10N.03E.33.231 MILES NO.	80-06-25	.050	.29	.010	13	100	120	<1	10	0

LOCAL IDENT- I- FIER	DATE OF SAMPLE	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)
NEW ATRISCO NO.5	80-05-09	30	0	1	.0	1	0
NEW MEXICO UTILITIES NO.	80-05-02	50	0	30	.0	1	0
WALKER WELL NO.1	80-04-26	30	3	50	.0	0	0
WALKER WELL NO.2	80-03-24	50	0	50	.0	1	0
10N.03E.32.413 SAN JOSE	80-06-25	<10	0	--	.0	1	0
10N.03E.32.421 SAN JOSE	80-06-25	<10	0	--	.0	0	0
10N.03E.32.444 AMERIGAS	80-06-25	50	0	--	.0	0	0
10N.03E.33.231 MILES NO.	80-06-25	<10	0	--	.2	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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
NEW ATRISCO NO.5	350418106412201	001	GW	80-05-09	1100	<5.9	4.2	4.1	3.1
NEW MEXICO UTILITIES NO.	351302106424501	001	GW	80-05-02	1515	5.9	6.2	6.3	3.4
WALKER WELL NO.1	351025106323801	001	GW	80-04-26	1300	4.2	3.3	3.3	2.1
WALKER WELL NO.2	351023106321301	001	GW	80-03-24	1230	9.6	5.0	5.1	4.2
10N.03E.32.413 SAN JOSE	350255106384401	001	GW	80-06-25	0945	<5.6	8.4	8.2	--
10N.03E.32.421 SAN JOSE	350304106383401	001	GW	80-06-25	1025	<4.7	7.0	6.8	--
10N.03E.32.444 AMERIGAS	350238106382401	001	GW	80-06-25	1135	<7.3	5.0	4.8	--
10N.03E.33.231 MILES NO.	350313106374701	001	GW	80-06-25	0855	<4.6	6.0	5.8	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

BERNALILLO COUNTY - Continued

PESTICIDE ANALYSES PERFORMED ON UNFILTERED SAMPLE

STATION	NUMBER	DATE OF SAMPLE	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)	ENDO- SULFAN, TOTAL (UG/L) (39388)
350418106412201	80-05-09	1100		.00	.00	.0	.00	.00	.00	--	.00	.00
351302106424501	80-05-02	1515		.00	.00	.0	.00	.00	.00	--	.00	.00
351025106323801	80-04-26	1300		.00	.00	.0	.00	.00	.00	--	.00	.00
351023106321301	80-03-24	1230		.00	.00	.0	.00	.00	.00	--	.00	.00
350255106384401	80-06-25	0945		.00	.00	.0	.00	.00	.00	.00	.00	.00
350304106383401	80-06-25	1025		.00	.00	.0	.00	.00	.00	.00	.00	.00
350313106374701	80-06-25	0855		.00	.00	.0	.00	.00	.00	.00	.00	.00

STATION	NUMBER	DATE OF SAMPLE	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)	METHYL TRI- THION, TOTAL (UG/L) (39790)	PARA- THION, TOTAL (UG/L) (39540)
350418106412201	80-05-09		.00	--	.00	.00	.00	--	.00	--	--	--
351302106424501	80-05-02		.00	--	.00	.00	.00	--	.00	--	--	--
351025106323801	80-04-26		.00	--	.00	.00	.00	--	.00	--	--	--
351023106321301	80-03-24		.00	--	.00	.00	.00	--	.00	--	--	--
350255106384401	80-06-25		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
350304106383401	80-06-25		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
350313106374701	80-06-25		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

STATION	NUMBER	DATE OF SAMPLE	TOX- APHENE, TOTAL (UG/L) (39400)	TOTAL TRI- THION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	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)
350418106412201	80-05-09		0	--	.00	.00	.00	.00	.0	.00
351302106424501	80-05-02		0	--	.00	.00	.00	.00	.0	.00
351025106323801	80-04-26		0	--	.00	.00	.00	.00	.0	.00
351023106321301	80-03-24		0	--	.00	.00	.00	.00	.0	.00
350255106384401	80-06-25		0	.00	.00	.00	.00	.00	.0	.00
350304106383401	80-06-25		0	.00	.00	.00	.00	.00	.0	.00
350313106374701	80-06-25		0	.00	.00	.00	.00	.00	.0	.00

RESULTS OF CUSTOM ANALYSES FOR SELECTED ORGANIC PARAMETERS

DETAILS OF CUSTOM ANALYSES PERFORMED ON THE WATER SAMPLES ARE AVAILABLE IN
NEW MEXICO DISTRICT OFFICE, WATER RESOURCES DIVISION, U.S. GEOLOGICAL SURVEY

THE FOLLOWING COMPOUNDS WERE IDENTIFIED BY GAS CHROMATOGRAPHIC ANALYSES:

10N.03E.32.413 SAN JOSE #6 (STATION NO. 350255106384401)
JUN 25, 80

1025

VOLATILES ANALYSIS (10 COMPOUNDS)

METHYLENECHLORIDE

1,1-DICHLOROETHENE

CHLOROFORM

CARBONTETRACHLORIDE

BENZENE

TRICHLOROETHENE

TETRACHLOROETHENE

TOLUENE

1,2,3-PROPANETRIOL, TRIACETATE (GLYCEROL TRIACETATE)

2-BUTYLTETRAHYDROFURAN

BASE NEUTRAL SCREEN

7 PEAKS IN COMMON WITH AMERIGAS WELL

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

BERNALILLO COUNTY - Continued

10N.03E.32.421 SAN JOSE #3 (STATION NO. 350304106383401)

JUN 25,80

0945

VOLATILES ANALYSIS (4 COMPOUNDS)

BENZENE

TOLUENE

1,2,3-PROPANETRIOL, TRIACETATE (GLYCEROL TRIACETATE)

2-BUTYL-TETRAHYDROFURAN

BASE NEUTRAL SCREEN

(NONE DETECTED)

10N.03E.32.444 AMERIGAS WELL (STATION NO. 350238106382401)

JUN 25,80

1135

VOLATILES ANALYSIS (16 COMPOUNDS)

CYCLOPENTANE

CYCLOPENTENE

2-PENTENE

1,2-DICHLOROETHANE

3-METHYL-2-BUTANONE

1,2-DICHLOROPROPANE

BENZENE

1,1'-THIOBISETHANE

3-METHYL-2-PENTANONE

TOLUENE

TETRACHLOROETHENE

2-ETHYLBUTANAL

3-METHYL-2-HEPTANONE

XYLENE

ETHYLTOLUENE (2 ISOMERS)

1,2,4-TRIMETHYL BENZENE

BASE-NEUTRAL ANALYSIS (47 COMPOUNDS)

HYDROCARBONS:

2,6-DIMETHYL-3-HEPTENE

1,1,2-TRIMETHYLCYCLOHEXANE

4-METHYLOCTANE

3,3,5-TRIMETHYLHEPTANE

2,2-DIMETHYLOCTYNE

1-EICOSYNE

1,4-DIMETHYL-2,5-BIS(1-METHYLETHYL)BENZENE

KETONES:

1,2,4-CYCLOPENTANETRIONE

3,4,5-TRIMETHYL-2-CYCLOPENTENE-1-ONE

4,8-DIMETHYL-7-NONENE-2-ONE

1-(4 ETHYLPHENYL)ETHANONE

1-(2,4-DIMETHYLPHENYL)ETHANONE

2-CHLORO-1-(2,4-DIMETHYLPHENYL)-2-METHYL-1-PROPANONE

1-(2,4,6-TRIMETHYLPHENYL)ETHANONE

1-(4-(1-METHYLETHYL)PHENYL)ETHANONE

3-METHYL-2-CYCLOHEXENE-1-ONE

3,6-DIMETHYL-6-(1-METHYLETHYL)-2-CYCLOHEXENE-1-ONE

3,5-DIMETHYL-2-CYCLOHEXENE-1-ONE

2-METHYL-3-NONANONE

5-NONENE-2-ONE

4-DECANONE

1-METHYLPHENYLETHANONE

4,4,5-TRIMETHYL-2-CYCLOHEXENE-1-ONE

1-(2-METHYLPHENYL)ETHANONE

1-(2,4,6-TRIMETHYLPHENYL)ETHANONE

POLYCYCLICS:

2,3-DIHYDRO-1H-INDENE-1-ONE

2,3-DIHYDRO-3,3-DIMETHYL-1H-INDENE-1-OL

2,3-DIHYDRO-3-METHYL-1H-INDENE-1-ONE

3,4-DIHYDRO-1-2H-NAPHTHALENONE

OCTAHYDRO-1H-INDENE

5-ETHYL-3,4-DIHYDRO-1-2H-NAPHTHALENONE

5,6-DIMETHYL-1-INDANONE

2,3-DIHYDRO-3,3-DIMETHYL-1H-INDENE-1-ONE

1,2,3,4-TETRAHYDRO-5,7-DIMETHYL NAPHTHALENE

2,3-DIHYDRO-3,3-DIMETHYL-1H-INDENE-1-OL

2,3-DIHYDRO-4,7-DIMETHYL-1H-INDENE-1-ONE

2,3-DIHYDRO-5,7-DIMETHYL-1H-INDENE-1-ONE

3,4-DIHYDRO-8-METHYL-1-2H-NAPHTHALENONE

5,6-DIMETHYL-1-INDANONE

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

BERNALILLO COUNTY - Continued

ETHERS:

4,7-DIMETHYLBENZOFURAN
5-METHOXY-6,7-DIMETHYLBENZOFURAN

ALCOHOLS:

5-METHYL-2-(1-METHYLETHYL)-CYCLOHEXANOL

PHTHALATES:

DIETHYL PHTHALATE
DIBUTYL PHTHALATE
DIISOOCTAL PHTHALATE

ACIDS ANALYSIS (2 COMPOUNDS)

2,4-DIMETHYL BENZOIC ACID
2,4,5-TRIMETHYL BENZOIC ACID

10N.03E.33.231 MILES #1 (STATION NO 350313106374701)
JUN 25,80
0855

VOLATILES ANALYSIS (5 COMPOUNDS)

CARBONTETRACHLORIDE
BENZENE
TOLUENE
1,2,3-PROPANETRIOL, TRIACETATE (GLYCEROL TRIACETATE)
2-BUTYLTETRAHYDROFURAN

BASE NEUTRAL SCREEN

9 PEAKS IN COMMON WITH AMERIGAS WELL

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)	DEPTH OF HOLE, TOTAL (FEET) (72001)
01N.09W.27.113 ANTELOPE	341712107462701		003	GW	80-05-09	---	120DTIL	---	340	---
01N.15W.15.441 SAN IGNAC	341821108232201		003	SP	80-07-11	1110	120DTIL	---	---	---
01N.15W.26.144 NUTRIA SP	341657108224901		003	SP	80-07-11	1220	120DTIL	---	---	---
01N.15W.27.342	341639108235101		003	GW	80-08-26	1120	110AVMB	---	---	---
01S.10W.34.433 MEDLEY	341014107515301		003	GW	80-08-28	0920	110AVMB	---	---	---
01S.11W.33.231A FLYING V	341048107590501		003	GW	80-05-08	---	110AVMB	---	---	---
			003	GW	80-08-08	---	110AVMB	---	---	---
01S.19W.09.124 SHERWOOD	341409108495001		003	GW	80-08-12	1214	110AVMB	---	---	---
02N.20W.29.413 GOAT SPRI	342152108572101		003	SP	80-08-08	1155	211MVRD	---	---	---
02S.09W.33.122 SNAKE WEL	340549107464201		003	GW	80-09-22	1015	110AVMB	---	---	380
02S.10W.10.222 DATIL CAM	340913107511601		003	GW	80-09-22	1220	120DTIL	---	---	206
02S.13W.28.122 OAK SPRIN	340642108120501		003	SP	79-10-31	---	---	---	---	---
03N.18W.33.233 NEW WELL	342633108433101		003	GW	80-08-19	1202	210MNCS	---	---	---
03S.09W.11.212 BENTON WE	340400107441801		003	GW	80-09-26	1005	110AVMB	---	---	300
03S.11W.12.242 WELLBORN	340348107553701		003	GW	80-06-27	1230	---	---	160	---
03S.12W.29.141 T. P. RAN	340108108070801		003	SP	80-05-01	---	120DTIL	---	---	---
03S.12W.30.223 SHERMAN S	340116108073301		003	SP	80-05-01	---	120DTIL	---	---	---
03S.12W.30.241 SHERMAN S	340106108073501		003	SP	79-11-28	---	120DTIL	---	---	---
04S.14W.34.212 PATTERSON	335545108165701		003	GW	80-08-07	1224	110AVMB	---	---	217
05S.10W.27.223 LUERA SPR	335054107513301		003	SP	79-11-28	---	---	---	---	---
05S.13W.20.123 FARR	335145108131301		003	GW	80-07-05	1200	110AVMB	25.93	90	---
09S.13W.20.324 NILES HOU	333050108121801		003	GW	80-01-15	1520	---	E620.00	701	---

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

CATRON COUNTY - Continued

LOCAL IDENT- IFIER	DATE OF SAMPLE	FLOW RATE, INSTAN- TANEOUS (GPM) (00059)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS 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)
01N.09W.27.113 ANTELOPE	80-05-09	1.0	210	7.8	17.0	71	0	26	1.5	21
01N.15W.15.441 SAN IGNAC	80-07-11	--	435	7.9	19.0	170	0	41	16	46
01N.15W.26.144 NUTRIA SP	80-07-11	--	370	8.9	24.0	120	0	27	13	41
01N.15W.27.342	80-08-26	--	670	7.9	12.0	230	0	55	22	85
01S.10W.34.433 MEDLEY	80-08-28	--	915	8.1	13.0	360	0	91	32	64
01S.11W.33.231A FLYING V	80-05-08	--	860	7.3	12.5	440	0	120	34	41
	80-08-08	--	860	--	--	--	--	--	--	--
01S.19W.09.124 SHERWOOD	80-08-12	--	480	8.5	18.0	7	0	2.4	3.3	110
02N.20W.29.413 GOAT SPRI	80-08-08	--	575	8.3	13.0	120	0	22	16	66
02S.09W.33.122 SNAKE WEL	80-09-22	--	328	8.2	18.0	110	0	31	7.0	31
02S.10W.10.222 DATIL CAM	80-09-22	--	510	7.9	18.0	180	0	57	8.7	47
02S.13W.28.122 OAK SPRIN	79-10-31	1.3	356	--	11.0	83	0	20	8.1	49
03N.18W.33.233 NEW WELL	80-08-19	--	1290	8.2	17.0	17	0	5.2	1.0	270
03S.09W.11.212 BENTON WE	80-09-26	--	250	8.6	15.0	84	0	24	5.9	26
03S.11W.12.242 WELLBORN	80-06-27	--	440	7.9	18.0	190	36	48	16	28
03S.12W.29.141 T. P. RAN	80-05-01	--	280	7.6	--	110	0	32	7.4	20
03S.12W.30.223 SHERMAN S	80-05-01	--	290	7.9	11.5	--	--	--	--	--
03S.12W.30.241 SHERMAN S	79-11-28	1.0	300	--	9.5	110	0	33	7.8	22
04S.14W.34.212 PATTERSON	80-08-07	--	408	7.7	19.0	160	0	39	14	19
05S.10W.27.223 LUERA SPR	79-11-28	--	--	--	--	140	0	41	10	19
05S.13W.20.123 FARR	80-07-05	--	3300	7.8	18.5	--	--	--	--	--
09S.13W.20.324 NILES HOU	80-01-15	--	320	7.9	--	83	0	31	1.3	36

LOCAL IDENT- IFIER	DATE OF SAMPLE	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 (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) (00300)
01N.09W.27.113 ANTELOPE	80-05-09	1.1	--	1.1	100	5.5	5.5	.2	32	152
01N.15W.15.441 SAN IGNAC	80-07-11	1.5	--	.6	250	4.8	6.1	2.1	31	--
01N.15W.26.144 NUTRIA SP	80-07-11	1.6	--	1.8	180	5.3	7.9	2.0	15	--
01N.15W.27.342	80-08-26	2.5	--	1.2	300	32	23	1.8	40	479
01S.10W.34.433 MEDLEY	80-08-28	1.5	--	.5	410	53	26	.4	34	560
01S.11W.33.231A FLYING V	80-05-08	.9	--	.8	440	57	16	.3	34	566
	80-08-08	--	--	--	--	--	--	--	--	--
01S.19W.09.124 SHERWOOD	80-08-12	18	--	1.5	200	39	8.0	1.5	9.7	313
02N.20W.29.413 GOAT SPRI	80-08-08	2.6	--	3.4	200	52	9.5	.5	18	310
02S.09W.33.122 SNAKE WEL	80-09-22	1.3	--	1.9	140	7.6	15	.3	33	221
02S.10W.10.222 DATIL CAM	80-09-22	1.5	--	.8	210	23	23	.7	35	329
02S.13W.28.122 OAK SPRIN	79-10-31	2.3	51	2.0	160	11	8.9	.7	25	219
03N.18W.33.233 NEW WELL	80-08-19	28	--	1.5	300	150	120	2.4	8.2	762
03S.09W.11.212 BENTON WE	80-09-26	1.2	--	1.8	110	28	8.4	.4	24	203
03S.11W.12.242 WELLBORN	80-06-27	.9	--	2.2	150	24	37	.8	37	280
03S.12W.29.141 T. P. RAN	80-05-01	.8	--	2.2	130	5.7	8.7	.1	55	213
03S.12W.30.223 SHERMAN S	80-05-01	--	--	--	140	--	--	--	--	--
03S.12W.30.241 SHERMAN S	79-11-28	.9	24	1.6	140	11	15	.2	60	226
04S.14W.34.212 PATTERSON	80-08-07	.7	--	3.9	200	1.9	4.5	.4	41	260
05S.10W.27.223 LUERA SPR	79-11-28	.7	20	1.1	170	12	19	.2	34	247
05S.13W.20.123 FARR	80-07-05	--	--	--	290	260	670	3.5	110	--
09S.13W.20.324 NILES HOU	80-01-15	1.7	37	1.2	110	52	12	3.8	46	--

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

CATRON COUNTY - Continued

LOCAL IDENT- I- PIER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) (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)
01N.09W.27.113 ANTELOPE	80-05-09	156	.62	3	10	10	<1	0	5	20
01N.15W.15.441 SAN IGNAC	80-07-11	299	.07	3	70	--	<1	10	3	120
01N.15W.26.144 NUTRIA SP	80-07-11	222	.08	7	40	--	<1	0	2	50
01N.15W.27.342	80-08-26	474	7.5	13	100	170	<1	0	8	20
01S.10W.34.433 MEDLEY	80-08-28	548	.00	2	60	80	<1	0	0	110
01S.11W.33.231A FLYING V	80-05-08	569	.13	3	100	40	<1	0	17	20
	80-08-08	--	--	--	--	--	--	--	--	--
01S.19W.09.124 SHERWOOD	80-08-12	294	.04	2	40	890	2	10	4	10
02N.20W.29.413 GOAT SPRI	80-08-08	309	.18	4	100	170	<1	0	2	<10
02S.09W.33.122 SNAKE WEL	80-09-22	215	.69	2	6	60	<1	0	14	40
02S.10W.10.222 DATIL CAM	80-09-22	332	2.2	8	20	120	<1	0	4	<10
02S.13W.28.122 OAK SPRIN	79-10-31	225	.99	2	--	30	<1	10	<10	50
03N.18W.33.233 NEW WELL	80-08-19	740	.00	0	20	670	<1	10	2	130
03S.09W.11.212 BENTON WE	80-09-26	188	.80	2	9	40	<1	20	6	30
03S.11W.12.242 WELLBORN	80-06-27	298	3.3	3	10	80	2	0	40	80
03S.12W.29.141 T. P. RAN	80-05-01	212	.52	1	20	0	<1	0	3	20
03S.12W.30.223 SHERMAN S	80-05-01	--	--	1	20	--	1	0	2	--
03S.12W.30.241 SHERMAN S	79-11-28	238	.71	1	--	20	<1	0	<10	10
04S.14W.34.212 PATTERSON	80-08-07	251	.32	1	10	130	5	10	28	1200
05S.10W.27.223 LUERA SPR	79-11-28	240	.25	--	--	20	--	--	--	20
05S.13W.20.123 FARR	80-07-05	--	1.3	--	--	--	--	--	--	--
09S.13W.20.324 NILES HOU	80-01-15	253	.74	--	--	--	--	--	--	--

LOCAL IDENT- I- PIER	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)
01N.09W.27.113 ANTELOPE	80-05-09	0	3	.0	1	0
01N.15W.15.441 SAN IGNAC	80-07-11	0	120	.0	0	0
01N.15W.26.144 NUTRIA SP	80-07-11	0	20	.0	0	0
01N.15W.27.342	80-08-26	0	<1	.0	4	0
01S.10W.34.433 MEDLEY	80-08-28	0	130	.0	0	0
01S.11W.33.231A FLYING V	80-05-08	0	10	.0	1	0
	80-08-08	--	--	--	--	--
01S.19W.09.124 SHERWOOD	80-08-12	0	6	.0	0	0
02N.20W.29.413 GOAT SPRI	80-08-08	0	<1	.0	0	0
02S.09W.33.122 SNAKE WEL	80-09-22	1	20	.0	0	0
02S.10W.10.222 DATIL CAM	80-09-22	0	2	.0	1	0
02S.13W.28.122 OAK SPRIN	79-10-31	<10	10	.0	--	--
03N.18W.33.233 NEW WELL	80-08-19	3	10	.0	0	0
03S.09W.11.212 BENTON WE	80-09-26	2	<1	.0	1	0
03S.11W.12.242 WELLBORN	80-06-27	31	50	.4	1	0
03S.12W.29.141 T. P. RAN	80-05-01	0	3	.2	1	0
03S.12W.30.223 SHERMAN S	80-05-01	0	--	.2	1	0
03S.12W.30.241 SHERMAN S	79-11-28	69	<1	.0	--	--
04S.14W.34.212 PATTERSON	80-08-07	16	50	.1	0	0
05S.10W.27.223 LUERA SPR	79-11-28	--	3	--	--	--
05S.13W.20.123 FARR	80-07-05	--	--	--	--	--
09S.13W.20.324 NILES HOU	80-01-15	--	--	--	--	--

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

CATRON COUNTY - Continued

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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
01N.09W.27.113 ANTELOPE	341712107462701		003	GW	80-05-09	--	8.8	1.9	1.9	3.8
01N.15W.15.441 SAN IGNAC	341821108232201		003	SP	80-07-11	1110	<6.3	<2.2	<2.1	--
01N.15W.26.144 NUTRIA SP	341657108224901		003	SP	80-07-11	1220	<4.2	<1.6	<1.5	--
01N.15W.27.342	341639108235101		003	GW	80-08-26	1120	12	<3.6	<3.5	9.6
01S.10W.34.433 MEDLEY	341014107515301		003	GW	80-08-28	0920	10	<4.1	<3.9	8.5
01S.11W.33.231A FLYING V	341048107590501		003	GW	80-05-08	--	14	<4.3	<4.1	7.0
01S.19W.09.124 SHERWOOD	341409108495001		003	GW	80-08-12	1214	<4.4	<2.0	<2.0	<.6
02N.20W.29.413 GOAT SPRI	342152108572101		003	SP	80-08-08	1155	15	3.4	3.2	7.6
02S.09W.33.122 SNAKE WEL	340549107464201		003	GW	80-09-22	1015	6.8	1.6	1.5	1.0
02S.10W.10.222 DATIL CAM	340913107511601		003	GW	80-09-22	1220	37	6.5	6.2	7.4
03N.18W.33.233 NEW WELL	342633108433101		003	GW	80-08-19	1202	<12	<6.5	<6.3	1.3
03S.09W.11.212 BENTON WE	340400107441801		003	GW	80-09-26	1005	3.1	1.6	1.5	.7
03S.11W.12.242 WELLBORN	340348107553701		003	GW	80-06-27	1230	7.7	3.2	3.1	2.4
03S.12W.29.141 T. P. RAN	340108108070801		003	SP	80-05-01	--	<2.8	3.9	3.7	1.0
04S.14W.34.212 PATTERSON	335545108165701		003	GW	80-08-07	1224	<4.0	3.3	3.2	<.6

DONA ANA

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)
17S.04E.02.211 NW-30	325205106301901		013	GW	80-08-04	1250	110BLSN	--	375	--
			013	GW	80-08-04	1315	110BLSN	--	490	--
			013	GW	80-08-04	1340	110BLSN	--	635	--
19S.05E.17.331 MAR-1	323906106274301		013	GW	80-08-07	1200	110BLSN	--	--	--
19S.05E.17.334 MAR-2	323857106273201		013	GW	80-02-22	1115	110BLSN	--	--	--
			013	GW	80-08-07	1000	110BLSN	--	--	--
20S.04W.19.324	323305107173201		013	GW	80-07-31	1600	110BLSN	195.00	--	--
20S.04W.30.113	323250107174201		013	GW	80-07-30	1630	110BLSN	195.00	--	--
21S.04E.23.233 HTA-1	322801106300801		013	GW	80-02-22	1330	000IRSV	--	--	--
			013	GW	80-08-07	1340	000IRSV	--	--	--
21S.05E.16.132 SMAR-1	322856106262701		013	GW	80-08-07	1200	110BLSN	--	--	--
21S.05E.32.222 T-13	322635106264401		013	GW	80-08-06	1025	110BLSN	--	300	--
			013	GW	80-08-06	1045	110BLSN	--	445	--
22S.02E.18.144 BUESCHER	322344106463801		013	GW	80-09-02	1800	--	334.00	--	--
22S.04E.01.431 T-9	322503106290801		013	GW	80-08-07	1200	110BLSN	--	550	--
22S.04E.11.224 T-8	322434106295001		013	GW	80-08-06	1440	110BLSN	--	610	--
			013	GW	80-08-06	1510	110BLSN	--	--	--
22S.04E.12.214 SW-20	322446106290801		013	GW	80-08-04	1100	110BLSN	--	--	838
			013	GW	80-08-05	1437	110BLSN	--	--	--
			013	GW	80-08-07	1333	110BLSN	--	--	--
22S.04E.12.414 SW-19	322424106290301		013	GW	80-02-20	1400	110BLSN	--	--	--
			013	GW	80-08-06	1249	110BLSN	--	--	--
22S.04E.12.434 SW-18	322405106290101		013	GW	80-08-05	1025	110BLSN	--	--	--
22S.04E.13.241 SW-17	322347106285801		013	GW	80-02-20	1400	110BLSN	--	--	--
			013	GW	80-08-05	1030	110BLSN	--	--	--
22S.04E.13.311 SW-13	322331106293801		013	GW	80-08-05	1240	110BLSN	--	--	--
22S.04E.13.424 SW-15	322333106284901		013	GW	80-02-20	1400	110BLSN	--	--	--
22S.04E.13.432 SW-16	322325106290401		013	GW	80-08-05	1040	110BLSN	--	--	--
22S.04E.14.133 T-6	322339106304301		013	GW	80-08-06	1650	110BLSN	--	350	--
22S.04E.24.112 SW-11	322310106293401		013	GW	80-08-05	1425	110BLSN	--	--	--
22S.04E.24.212A SW-10A	322309106290201		013	GW	80-08-05	1000	110BLSN	--	--	--
22S.04W.31.343 MIDDLE WM	322040107173101		013	GW	80-08-14	1845	000EXRV	85.00	--	--
22S.05E.05.313 WSMR T-10	322510106274101		013	GW	80-08-05	1015	110BLSN	--	513	--
22S.05E.07.342 T-7	322415106281801		013	GW	80-08-07	0930	110BLSN	--	--	--
			013	GW	80-08-07	1005	110BLSN	--	900	--
22S.05E.15.221 T-14	321401106245201		013	GW	80-08-05	1605	110BLSN	--	200	--
			013	GW	80-08-05	1620	110BLSN	--	300	--
22S.05E.16.111 T-4	322403106263901		013	GW	80-08-07	1110	110BLSN	--	--	--
22S.05E.19.141 SW-22	322256106282601		013	GW	80-08-07	1420	110BLSN	--	--	--
22S.05E.19.323 SW-21	322237106282801		013	GW	80-08-05	1200	110BLSN	--	--	--

DONA ANA COUNTY - Continued

[illegible]

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DONA ANA 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)	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA) (00933)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	ALKA- LINITY (MG/L AS CaCO3) (00410)
21S.05E.16.132 SMAR-1	80-08-07	--	--	--	--	--	--	--	--	--
21S.05E.32.222 T-13	80-08-06	--	--	--	--	--	--	--	--	--
	80-08-06	--	--	--	--	--	--	--	--	--
22S.02E.18.144 BUESCHER	80-09-02	29	44	9.4	140	5.0	--	8.2	--	120
22S.04E.01.431 T-9	80-08-07	--	--	--	--	--	--	--	--	--
22S.04E.11.224 T-8	80-08-06	--	--	--	--	--	--	--	--	--
	80-08-06	--	--	--	--	--	--	--	--	--
22S.04E.12.214 SW-20	80-08-04	84	60	13	34	1.0	--	3.0	--	120
	80-08-05	--	--	--	--	--	--	--	--	--
	80-08-07	77	59	12	33	1.0	--	2.6	--	120
22S.04E.12.414 SW-19	80-02-20	13	40	8.0	28	1.1	30	2.3	--	120
	80-08-06	--	--	--	--	--	--	--	--	--
22S.04E.12.434 SW-18	80-08-05	--	--	--	--	--	--	--	--	--
22S.04E.13.241 SW-17	80-02-20	0	31	5.0	42	1.8	44	2.2	--	98
	80-08-05	--	--	--	--	--	--	--	--	--
22S.04E.13.311 SW-13	80-08-05	--	--	--	--	--	--	--	--	--
22S.04E.13.424 SW-15	80-02-20	0	31	5.6	33	1.4	35	2.2	--	100
22S.04E.13.432 SW-16	80-08-05	--	--	--	--	--	--	--	--	--
22S.04E.14.133 T-6	80-08-06	10	46	11	28	1.0	--	2.1	--	150
22S.04E.24.112 SW-11	80-08-05	--	--	--	--	--	--	--	--	--
22S.04E.24.212A SW-10A	80-08-05	--	--	--	--	--	--	--	--	--
22S.04W.31.343 MIDDLE WM	80-08-14	0	80	9.1	32	.9	--	9.4	360	295
22S.05E.05.313 WSMR T-10	80-08-05	--	--	--	--	--	--	--	--	--
22S.05E.07.342 T-7	80-08-07	--	--	--	--	--	--	--	--	--
	80-08-07	--	--	--	--	--	--	--	--	--
22S.05E.15.221 T-14	80-08-05	0	2.1	.1	300	55	--	6.2	--	140
	80-08-05	0	1.8	.2	300	57	--	6.2	--	140
22S.05E.16.111 T-4	80-08-07	--	--	--	--	--	--	--	--	--
22S.05E.19.141 SW-22	80-08-07	--	--	--	--	--	--	--	--	--
22S.05E.19.323 SW-21	80-08-05	7	25	6.9	18	.8	--	1.8	--	84

LOCAL IDENT- I- FIER	DATE OF SAMPLE	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)	PHOS- PHORUS, ORTHOPH- OSPHATE DISSOL. (MG/L AS P) (00671)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)
17S.04E.02.211 NW-30	80-08-04	--	--	--	--	--	--	--	--	--
	80-08-04	1000	15000	.4	1.0	--	25000	.00	.000	--
	80-08-04	--	--	--	--	--	--	--	--	--
19S.05E.17.331 MAR-1	80-08-07	--	--	--	--	--	--	--	--	--
19S.05E.17.334 MAR-2	80-02-22	170	36	.2	22	--	502	1.1	.500	--
	80-08-07	--	--	--	--	--	--	--	--	--
20S.04W.19.324	80-07-31	33	18	.9	93	--	370	3.8	--	6
20S.04W.30.113	80-07-30	46	32	.8	94	--	403	4.0	--	--
21S.04E.23.233 HTA-1	80-02-22	120	27	4.7	31	--	454	6.7	.010	--
	80-08-07	--	--	--	--	--	--	--	--	--
21S.05E.16.132 SMAR-1	80-08-07	--	--	--	--	--	--	--	--	--
21S.05E.32.222 T-13	80-08-06	--	--	--	--	--	--	--	--	--
	80-08-06	--	--	--	--	--	--	--	--	--
22S.02E.18.144 BUESCHER	80-09-02	89	180	1.3	24	--	571	.76	--	--
22S.04E.01.431 T-9	80-08-07	--	--	--	--	--	--	--	--	--
22S.04E.11.224 T-8	80-08-06	--	--	--	--	--	--	--	--	--
	80-08-06	--	--	--	--	--	--	--	--	--
22S.04E.12.214 SW-20	80-08-04	100	26	.5	43	392	364	2.6	--	1
	80-08-05	--	--	--	--	--	--	--	--	--
	80-08-07	110	28	.5	42	--	371	2.6	.000	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DONA ANA COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	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)	PHOS- PHORUS, ORTHOPH DISSOL. (MG/L AS P) (00671)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)
22S.04E.12.414 SW-19	80-02-20	57	13	.3	41	--	268	1.3	.030	--
	80-08-06	--	--	--	--	--	--	--	--	--
22S.04E.12.434 SW-18	80-08-05	--	--	--	--	--	--	--	--	--
22S.04E.13.241 SW-17	80-02-20	66	15	.5	34	--	260	1.2	.010	--
	80-08-05	--	--	--	--	--	--	--	--	--
22S.04E.13.311 SW-13	80-08-05	--	--	--	--	--	--	--	--	--
22S.04E.13.424 SW-15	80-02-20	55	11	.4	37	--	239	.91	.030	--
22S.04E.13.432 SW-16	80-08-05	--	--	--	--	--	--	--	--	--
22S.04E.14.133 T-6	80-08-06	52	13	.7	40	--	286	.63	.000	--
22S.04E.24.112 SW-11	80-08-05	--	--	--	--	--	--	--	--	--
22S.04E.24.212A SW-10A	80-08-05	--	--	--	--	--	--	--	--	--
22S.04W.31.343 MIDDLE WM	80-08-14	9.8	2.5	.5	66	--	404	3.9	--	--
22S.05E.05.313 WSMR T-10	80-08-05	--	--	--	--	--	--	--	--	--
22S.05E.07.342 T-7	80-08-07	--	--	--	--	--	--	--	--	--
	80-08-07	--	--	--	--	--	--	--	--	--
22S.05E.15.221 T-14	80-08-05	85	340	.6	3.4	--	822	.00	.000	--
	80-08-05	81	330	.6	3.4	--	807	.00	.000	--
22S.05E.16.111 T-4	80-08-07	--	--	--	--	--	--	--	--	--
22S.05E.19.141 SW-22	80-08-07	--	--	--	--	--	--	--	--	--
22S.05E.19.323 SW-21	80-08-05	37	9.4	.4	47	--	201	1.2	.000	--
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)	LITHIUM, DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
17S.04E.02.211 NW-30	80-08-04	--	--	--	--	--	--	--	--	--
	80-08-04	--	220	--	--	--	180	--	--	390
	80-08-04	--	--	--	--	--	--	--	--	--
19S.05E.17.331 MAR-1	80-08-07	--	--	--	--	--	--	--	--	--
19S.05E.17.334 MAR-2	80-02-22	--	50	--	--	--	<10	--	--	50
	80-08-07	--	--	--	--	--	--	--	--	--
20S.04W.19.324	80-07-31	30	120	<1	10	0	<10	1	--	<1
20S.04W.30.113	80-07-30	--	130	--	--	--	<10	--	--	<1
21S.04E.23.233 HTA-1	80-02-22	--	40	--	--	--	<10	--	--	<1
	80-08-07	--	--	--	--	--	--	--	--	--
21S.05E.16.132 SMAR-1	80-08-07	--	--	--	--	--	--	--	--	--
21S.05E.32.222 T-13	80-08-06	--	--	--	--	--	--	--	--	--
	80-08-06	--	--	--	--	--	--	--	--	--
22S.02E.18.144 BUESCHER	80-09-02	--	--	--	--	--	10	--	--	10
22S.04E.01.431 T-9	80-08-07	--	--	--	--	--	--	--	--	--
22S.04E.11.224 T-8	80-08-06	--	--	--	--	--	--	--	--	--
	80-08-06	--	--	--	--	--	--	--	--	--
22S.04E.12.214 SW-20	80-08-04	80	40	<1	0	2	10	0	20	1
	80-08-05	--	--	--	--	--	--	--	--	--
	80-08-07	--	80	--	--	--	<10	--	--	<1
22S.04E.12.414 SW-19	80-02-20	--	20	--	--	--	<10	--	--	<1
	80-08-06	--	--	--	--	--	--	--	--	--
22S.04E.12.434 SW-18	80-08-05	--	--	--	--	--	--	--	--	--
22S.04E.13.241 SW-17	80-02-20	--	30	--	--	--	<10	--	--	<1
	80-08-05	--	--	--	--	--	--	--	--	--
22S.04E.13.311 SW-13	80-08-05	--	--	--	--	--	--	--	--	--
22S.04E.13.424 SW-15	80-02-20	--	20	--	--	--	<10	--	--	<1
22S.04E.13.432 SW-16	80-08-05	--	--	--	--	--	--	--	--	--
22S.04E.14.133 T-6	80-08-06	--	80	--	--	--	10	--	--	<1
22S.04E.24.112 SW-11	80-08-05	--	--	--	--	--	--	--	--	--
22S.04E.24.212A SW-10A	80-08-05	--	--	--	--	--	--	--	--	--
22S.04W.31.343 MIDDLE WM	80-08-14	--	70	--	--	--	20	--	--	10
22S.05E.05.313 WSMR T-10	80-08-05	--	--	--	--	--	--	--	--	--
22S.05E.07.342 T-7	80-08-07	--	--	--	--	--	--	--	--	--
	80-08-07	--	--	--	--	--	--	--	--	--
22S.05E.15.221 T-14	80-08-05	--	100	--	--	--	<10	--	--	<1
	80-08-05	--	110	--	--	--	<10	--	--	<1
22S.05E.16.111 T-4	80-08-07	--	--	--	--	--	--	--	--	--
22S.05E.19.141 SW-22	80-08-07	--	--	--	--	--	--	--	--	--
22S.05E.19.323 SW-21	80-08-05	--	70	--	--	--	<10	--	--	2

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DONA ANA COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	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)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)
17S.04E.02.211 NW-30	80-08-04	--	--	--	--
	80-08-04	--	--	--	--
	80-08-04	--	--	--	--
19S.05E.17.331 MAR-1	80-08-07	--	--	--	--
19S.05E.17.334 MAR-2	80-02-22	--	--	--	--
	80-08-07	--	--	--	--
20S.04W.19.324	80-07-31	.0	2	0	--
20S.04W.30.113	80-07-30	--	--	--	--
21S.04E.23.233 HTA-1	80-02-22	--	--	--	--
	80-08-07	--	--	--	--
21S.05E.16.132 SMAR-1	80-08-07	--	--	--	--
21S.05E.32.222 T-13	80-08-06	--	--	--	--
	80-08-06	--	--	--	--
22S.02E.18.144 BUESCHER	80-09-02	--	--	--	--
22S.04E.01.431 T-9	80-08-07	--	--	--	--
22S.04E.11.224 T-8	80-08-06	--	--	--	--
	80-08-06	--	--	--	--
22S.04E.12.214 SW-20	80-08-04	.0	1	0	410
	80-08-05	--	--	--	--
	80-08-07	--	--	--	--
22S.04E.12.414 SW-19	80-02-20	--	--	--	--
	80-08-06	--	--	--	--
22S.04E.12.434 SW-18	80-08-05	--	--	--	--
22S.04E.13.241 SW-17	80-02-20	--	--	--	--
	80-08-05	--	--	--	--
22S.04E.13.311 SW-13	80-08-05	--	--	--	--
22S.04E.13.424 SW-15	80-02-20	--	--	--	--
22S.04E.13.432 SW-16	80-08-05	--	--	--	--
22S.04E.14.133 T-6	80-08-06	--	--	--	--
22S.04E.24.112 SW-11	80-08-05	--	--	--	--
22S.04E.24.212A SW-10A	80-08-05	--	--	--	--
22S.04W.31.343 MIDDLE WM	80-08-14	--	--	--	--
22S.05E.05.313 WSMR T-10	80-08-05	--	--	--	--
22S.05E.07.342 T-7	80-08-07	--	--	--	--
	80-08-07	--	--	--	--
22S.05E.15.221 T-14	80-08-05	--	--	--	--
	80-08-05	--	--	--	--
22S.05E.16.111 T-4	80-08-07	--	--	--	--
22S.05E.19.141 SW-22	80-08-07	--	--	--	--
22S.05E.19.323 SW-21	80-08-05	--	--	--	--

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)
22S.05E.20.111 T-5	322311106274101	013	GW	80-08-06	1145	110BLSN	--	330	--
22S.05E.29.412 T-11	322155106270201	013	GW	80-08-05	0855	110BLSN	--	570	--
22S.05E.33.244 T-15	322108106254701	013	GW	80-08-05	1350	110BLSN	--	400	--
23S.05E.05.321 WSMR T-18	322010106272701	013	GW	80-08-05	1440	110BLSN	--	620	--
23S.05E.10.413 WSMR T-16	321910106250701	013	GW	80-08-05	1200	110BLSN	--	320	--
		013	GW	80-08-05	1210	110BLSN	--	530	--
23S.05E.27.142 T-17	321647106251301	013	GW	80-08-05	1100	110BLSN	--	440	457
24S.04W.12.224	321146107142201	013	GW	80-08-19	1700	110BLSN	E110.00	--	--
25S.03W.02.213 ADEN STAT	321000107065601	013	GW	80-08-20	1200	000EXRV	381.00	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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 TO SAM- PLING (MIN) (72004)	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE, INSTAN- TANEOUS (GPM) (00059)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)
22S.05E.20.111 T-5	80-08-06	--	--	--	--	--	366	7.9	26.0	--
22S.05E.29.412 T-11	80-08-05	--	--	--	--	--	328	7.9	27.0	97
22S.05E.33.244 T-15	80-08-05	--	--	--	--	--	545	8.1	24.5	57
23S.05E.05.321 WSMR T-18	80-08-05	--	--	--	--	--	734	8.1	29.0	--
23S.05E.10.413 WSMR T-16	80-08-05	--	--	--	--	--	357	7.6	24.0	--
	80-08-05	--	--	--	--	--	287	8.4	25.5	--
23S.05E.27.142 T-17	80-08-05	440	457	--	--	--	200	8.1	25.5	65
24S.04W.12.224	80-08-19	--	180	--	--	--	1310	8.1	23.5	93
25S.03W.02.213 ADEN STAT	80-08-20	--	--	--	--	--	690	7.8	26.0	110

LOCAL IDENT- I- FIER	DATE OF SAMPLE	HARD- NESS, NONCAR- BONATE (MG/L AS CA) (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)	BICAR- BONATE (MG/L AS HCO3) (00440)	ALKA- LINITY (MG/L AS CACO3) (00410)
22S.05E.20.111 T-5	80-08-06	--	--	--	--	--	--	--	--	--
22S.05E.29.412 T-11	80-08-05	13	29	5.9	24	1.1	--	2.1	--	84
22S.05E.33.244 T-15	80-08-05	33	21	1.2	76	4.4	--	3.9	--	24
23S.05E.05.321 WSMR T-18	80-08-05	--	--	--	--	--	--	--	--	--
23S.05E.10.413 WSMR T-16	80-08-05	--	--	--	--	--	--	--	--	--
	80-08-05	--	--	--	--	--	--	--	--	--
23S.05E.27.142 T-17	80-08-05	0	21	3.0	21	1.1	--	2.3	--	75
24S.04W.12.224	80-08-19	0	19	11	240	11	--	2.3	300	230
25S.03W.02.213 ADEN STAT	80-08-20	0	23	12	120	5.1	--	1.6	170	140

LOCAL IDENT- I- FIER	DATE OF SAMPLE	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)	PHOS- PHORUS, ORTHOPH- OSPHATE DISSOL. (MG/L AS P) (00671)	ARSENIC DIS- SOLVED (MG/L AS AS) (01000)
22S.05E.20.111 T-5	80-08-06	--	--	--	--	--	--	--	--	--
22S.05E.29.412 T-11	80-08-05	44	17	.3	35	--	212	.91	.000	--
22S.05E.33.244 T-15	80-08-05	76	96	.5	2.9	--	292	.00	.000	--
23S.05E.05.321 WSMR T-18	80-08-05	--	--	--	--	--	--	--	--	--
23S.05E.10.413 WSMR T-16	80-08-05	--	--	--	--	--	--	--	--	--
	80-08-05	--	--	--	--	--	--	--	--	--
23S.05E.27.142 T-17	80-08-05	21	8.8	.5	14	148	137	.00	--	1
24S.04W.12.224	80-08-19	190	110	2.0	43	--	773	3.8	--	--
25S.03W.02.213 ADEN STAT	80-08-20	130	59	1.2	31	--	463	.11	--	--

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)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
22S.05E.20.111 T-5	80-08-06	--	--	--	--	--	--	--	--	--
22S.05E.29.412 T-11	80-08-05	--	80	--	--	--	10	--	--	10
22S.05E.33.244 T-15	80-08-05	--	80	--	--	--	<10	--	--	7
23S.05E.05.321 WSMR T-18	80-08-05	--	--	--	--	--	--	--	--	--
23S.05E.10.413 WSMR T-16	80-08-05	--	--	--	--	--	--	--	--	--
	80-08-05	--	--	--	--	--	--	--	--	--
23S.05E.27.142 T-17	80-08-05	50	130	2	10	1	<10	1	9	30
24S.04W.12.224	80-08-19	--	340	--	--	--	40	--	--	4
25S.03W.02.213 ADEN STAT	80-08-20	--	50	--	--	--	<10	--	--	<1

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DONA ANA COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	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)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)
22S.05E.20.111 T-5	80-08-06	--	--	--	--
22S.05E.29.412 T-11	80-08-05	--	--	--	--
22S.05E.33.244 T-15	80-08-05	--	--	--	--
23S.05E.05.321 WSMR T-18	80-08-05	--	--	--	--
23S.05E.10.413 WSMR T-16	80-08-05	--	--	--	--
23S.05E.27.142 T-17	80-08-05	--	--	--	--
24S.04W.12.224	80-08-19	.0	0	0	230
25S.03W.02.213 ADEN STAT	80-08-20	--	--	--	--

LOCAL IDENT- I- PIER	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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
22S.04E.12.214 SW-20	322446106290801		013	GW	80-08-04	1100	<6.8	<2.8	<2.7	2.2
23S.02E.15.120 TELSHOR N	321847106433501		013	GW	80-01-19	--	<37	54	51	6.4
23S.05E.27.142 T-17	321647106251301		013	GW	80-08-05	1100	<2.2	1.4	1.3	<.6

EDDY 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)
17S.26E.02.21243	325217104205501	015	GW	80-05-13	1215	--	--	--	--	--
17S.26E.12.331 PECOS TEN	325041104193701	015	GW	80-06-23	1902	--	6.18	--	--	--
21S.31E.18.2111 WIPP-28	322912103485701	015	GW	80-03-20	1015	312RSLRL	--	--	--	--
		015	GW	80-08-21	0900	312CLBR	--	--	--	--
21S.31E.21.1211 WIPP-27	322814103531501	015	GW	80-05-21	1130	312RSLR	--	23.0	--	--
		015	GW	80-07-24	0900	310MGNT	--	--	--	--
		015	GW	80-08-22	1245	312CLBR	--	--	--	--
		015	GW	80-09-20	0900	310MGNT	--	--	195	--
21S.31E.33.1113 WIPP-30	322632103472201	015	GW	80-03-19	1030	312RSLRL	--	--	--	--
		015	GW	80-08-13	1000	312CLBR	--	--	--	--
		015	GW	80-09-24	0845	310MGNT	--	--	--	--
22S.29E.34.3423 WIPP-29	322037103580901	015	GW	80-03-18	1400	312RSLRL	--	--	--	--
		015	GW	80-08-20	1200	312CLBR	--	--	--	--
22S.30E.15.1433 WIPP-25	322336103522401	015	GW	80-03-19	1445	312RSLRL	--	--	--	--
		015	GW	80-08-14	1200	312CLBR	--	--	--	--
		015	GW	80-09-04	1115	310MGNT	--	--	--	--
22S.30E.29.2322 WIPP-26	322200103524801	015	GW	80-03-18	1100	312RSLRL	--	--	--	--
		015	GW	80-08-18	1300	312CLBR	--	--	--	--
22S.31E.26.4434 P-18	322121103405501	015	GW	80-05-20	1200	312RSLRL	--	27.0	--	--
23S.30E.14.1333 H-7B	321820103510502	015	GW	80-03-20	1345	312CLBR	--	--	--	--
23S.30E.14.1333 H-7C	321820103510503	015	GW	80-03-20	1500	312RSLRL	--	--	--	--
24S.30E.23.2423 H-8A	321218103504901	015	GW	80-02-12	1000	310MGNT	--	502	--	--
24S.30E.23.2423 H-8B	321218103504902	015	GW	80-02-11	1200	312CLBR	--	600	--	--
24S.30E.23.2423 H-8C	321218103504903	015	GW	80-09-06	0830	312RSLRL	--	--	808	--
24S.31E.04.1341 H-9A	321443103472401	015	GW	80-02-05	1030	310MGNT	--	--	--	--
24S.31E.04.1341 H-9B	321443103472402	015	GW	80-02-05	1230	312CLBR	--	--	--	--
24S.31E.04.1341 H-9C	321443103472403	015	GW	80-05-20	0830	312RSLRL	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

EDDY COUNTY - Continued

LOCAL IDENT- IFIER	DATE OF SAMPLE	DEPTH TO TOP OF WATER- BEARING ZONE (FT) (72002)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	DENSITY (GM/ML AT 20 C) (71820)	HARD- NESS (MG/L AS CACO3) (00900)
17S.26E.02.21243	80-05-13	--	--	--	--	10900	5.3	--	--	2200
17S.26E.12.331 PECOS TEN	80-06-23	--	10	--	--	10400	7.0	--	--	3500
21S.31E.18.2111 WIPP-28	80-03-20	--	--	--	--	280000	7.0	22.0	1.140	13000
	80-08-21	--	--	446	420	80000	6.4	24.0	1.044	4900
21S.31E.21.1211 WIPP-27	80-05-21	--	--	--	--	231000	7.8	23.0	1.205	4800
	80-07-24	--	--	460	424	112000	6.8	23.5	1.080	11000
	80-08-22	--	--	320	290	155000	6.4	23.5	1.094	16000
	80-09-20	175	--	--	--	156000	6.5	24.0	--	17000
21S.31E.33.1113 WIPP-30	80-03-19	--	--	753	731	380000	7.0	23.0	1.201	12000
	80-08-13	--	--	654	631	125000	6.8	24.5	1.072	6300
	80-09-24	--	--	540	510	28000	8.8	--	--	2400
22S.29E.34.3423 WIPP-29	80-03-18	--	--	250	216	160000	7.3	19.5	1.068	10000
	80-08-20	--	--	45	10	180000	6.1	22.0	1.178	26000
22S.30E.15.1433 WIPP-25	80-03-19	--	--	608	579	330000	7.2	22.5	1.173	15000
	80-08-14	--	--	475	445	26400	7.3	23.5	1.014	3300
	80-09-04	--	--	330	300	21100	7.5	22.5	1.010	3300
22S.30E.29.2322 WIPP-26	80-03-18	--	--	329	288	143000	8.5	21.0	1.078	12000
	80-08-18	--	--	210	185	30500	6.9	22.0	1.013	4400
22S.31E.26.4434 P-18	80-05-20	1040	--	--	--	162000	6.0	27.0	1.260	290000
23S.30E.14.1333 H-7B	80-03-20	--	--	--	--	3600	7.0	22.0	1.001	2000
23S.30E.14.1333 H-7C	80-03-20	--	--	--	--	140000	6.8	22.5	1.048	10000
24S.30E.23.2423 H-8A	80-02-12	--	--	--	--	13100	9.3	18.0	1.006	2200
24S.30E.23.2423 H-8B	80-02-11	--	--	--	--	3100	7.3	--	1.000	2100
24S.30E.23.2423 H-8C	80-09-06	735	--	--	--	141000	7.6	--	--	4800
24S.31E.04.1341 H-9A	80-02-05	--	--	--	--	6000	8.5	19.0	1.003	2100
24S.31E.04.1341 H-9B	80-02-05	--	--	--	--	4000	7.3	20.0	--	2100
24S.31E.04.1341 H-9C	80-05-20	808	--	--	--	230000	7.0	24.0	1.202	6800

LOCAL IDENT- IFIER	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)	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA) (00933)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFIDE TOTAL (MG/L AS S) (00745)
17S.26E.02.21243	80-05-13	2200	190	430	1600	15	--	9.3	17	--
17S.26E.12.331 PECOS TEN	80-06-23	3200	640	460	1300	9.6	--	6.1	330	--
21S.31E.18.2111 WIPP-28	80-03-20	13000	750	2700	71000	271	91000	2800	230	--
	80-08-21	4300	1200	470	21000	130	--	4.0	670	10
21S.31E.21.1211 WIPP-27	80-05-21	4700	900	610	130000	820	--	390	25	--
	80-07-24	11000	1100	1900	34000	144	--	1800	57	--
	80-08-22	16000	3100	2000	39000	134	--	100	150	.0
	80-09-20	17000	3600	2000	43000	143	--	10000	180	1.8
21S.31E.33.1113 WIPP-30	80-03-19	11000	850	2300	120000	485	22000	1500	320	--
	80-08-13	6300	1100	870	37000	202	--	8.2	74	.0
	80-09-24	2400	690	170	5500	49	--	190	62	.0
22S.29E.34.3423 WIPP-29	80-03-18	10000	850	2000	32000	137	33000	1000	130	--
	80-08-20	25000	810	5700	79000	215	--	150	210	.0
22S.30E.15.1433 WIPP-25	80-03-19	15000	650	3200	90000	322	92000	2400	80	--
	80-08-14	3000	920	250	5100	38	--	.9	370	.8
	80-09-04	3100	910	240	3100	24	--	.8	150	1.2
22S.30E.29.2322 WIPP-26	80-03-18	12000	2700	1300	52000	206	53000	1000	160	--
	80-08-18	4300	1200	340	3600	24	--	2.0	130	.0
22S.31E.26.4434 P-18	80-05-20	290000	31000	51000	20000	16	--	16000	400	.0
23S.30E.14.1333 H-7B	80-03-20	1900	590	130	210	2.0	210	1.4	100	--
23S.30E.14.1333 H-7C	80-03-20	10000	2600	910	22000	95	22000	210	35	--
24S.30E.23.2423 H-8A	80-02-12	2200	870	17	2400	22	2500	84	26	--
24S.30E.23.2423 H-8B	80-02-11	2100	570	170	82	.8	87	4.7	61	--
24S.30E.23.2423 H-8C	80-09-06	4700	1200	430	46000	290	--	660	21	.6
24S.31E.04.1341 H-9A	80-02-05	2000	550	170	800	7.6	830	28	35	--
24S.31E.04.1341 H-9B	80-02-05	2000	580	150	210	2.0	220	1400	90	--
24S.31E.04.1341 H-9C	80-05-20	6800	1300	870	130000	685	--	1200	24	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

EDDY COUNTY - Continued

LOCAL IDENT- IFIER	DATE OF SAMPLE	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 SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHOPHOSPHATE DISSOL. (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
17S.26E.02.21243	80-05-13	1100	3000	.1	.3	--	6360	3.4	--	--
17S.26E.12.331 PECOS TEN	80-06-23	3000	2100	--	14	--	7720	.37	--	--
21S.31E.18.2111 WIPP-28	80-03-20	5200	120000	.2	3.5	337000	203000	.03	.050	--
	80-08-21	3200	30000	1.1	28	74000	56400	.09	.030	230
21S.31E.21.1211 WIPP-27	80-05-21	8400	230000	.2	2.5	327000	363000	.17	.120	--
	80-07-24	9400	61000	.0	1.7	106000	109000	.32	.070	16
	80-08-22	3900	77000	.5	13	186000	125000	4.0	.060	44
	80-09-20	2900	85000	.4	13	173000	147000	.40	.040	--
21S.31E.33.1113 WIPP-30	80-03-19	7000	170000	.0	3.5	271000	302000	.04	.080	--
	80-08-13	2800	64000	.5	1.5	110000	106000	1.2	.060	120
	80-09-24	3200	8700	1.9	.7	19000	18500	.00	.000	--
22S.29E.34.3423 WIPP-29	80-03-18	12000	49000	.9	3.5	129000	97000	.23	.010	--
	80-08-20	13000	140000	.7	11	172000	239000	.02	.030	86
22S.30E.15.1433 WIPP-25	80-03-19	12000	130000	.0	2.6	252000	238000	.04	.070	--
	80-08-14	2400	8300	1.4	29	22100	17200	.67	.060	80
	80-09-04	1900	5600	1.5	25	18700	11900	.64	.020	37
22S.30E.29.2322 WIPP-26	80-03-18	7600	88000	.0	2.5	121000	153000	.05	.040	--
	80-08-18	2300	8200	1.5	20	23800	15800	3.5	.030	20
22S.31E.26.4434 P-18	80-05-20	280	250000	2.3	3.2	412000	369000	.06	.420	--
23S.30E.14.1333 H-7B	80-03-20	1900	350	1.4	39	3610	3290	.40	.000	--
23S.30E.14.1333 H-7C	80-03-20	2900	41000	.8	7.2	79800	69700	.03	.010	--
24S.30E.23.2423 H-8A	80-02-12	2100	3500	.7	.9	9410	8990	.06	.030	--
24S.30E.23.2423 H-8B	80-02-11	2000	57	2.4	19	3200	2950	.95	.000	--
24S.30E.23.2423 H-8C	80-09-06	5300	70000	.4	.8	130000	124000	.00	.060	--
24S.31E.04.1341 H-9A	80-02-05	2700	750	1.8	3.3	5460	5030	.02	.000	--
24S.31E.04.1341 H-9B	80-02-05	2000	320	3.0	26	3590	3350	.13	.000	--
24S.31E.04.1341 H-9C	80-05-20	2600	190000	.1	3.8	321000	326000	1.1	.070	--

LOCAL IDENT- IFIER	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)	CHRO- MIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
17S.26E.02.21243	80-05-13	--	--	--	--	--	--	--	--	--
17S.26E.12.331 PECOS TEN	80-06-23	--	--	--	--	--	--	--	--	--
21S.31E.18.2111 WIPP-28	80-03-20	1	400	38000	0	120	0	1900	0	23000
	80-08-21	98	--	5400	0	--	0	1700	1	58000
21S.31E.21.1211 WIPP-27	80-05-21	1	800	9400	2	320	0	37000	190	10
	80-07-24	0	400	26000	0	10	1	2700	8	2000
	80-08-22	1	2000	1900	0	400	1	4000	3	33000
	80-09-20	2	100	230	0	100	0	1800	0	1100
21S.31E.33.1113 WIPP-30	80-03-19	0	800	77000	0	140	0	1600	5	49000
	80-08-13	0	--	23000	6	200	0	2800	27	790
	80-09-24	0	300	12000	1	40	0	150	1	30
22S.29E.34.3423 WIPP-29	80-03-18	0	500	21000	2	20	1	850	0	17000
	80-08-20	33	--	1300	1	500	0	7000	4	15000
22S.30E.15.1433 WIPP-25	80-03-19	0	800	35000	2	120	0	1100	9	3000
	80-08-14	17	100	1900	15	--	0	500	27	9300
	80-09-04	8	100	1900	0	30	0	350	0	1500
22S.30E.29.2322 WIPP-26	80-03-18	1	600	30000	1	60	0	1600	5	950
	80-08-18	12	0	1800	1	40	1	400	2	2200
22S.31E.26.4434 P-18	80-05-20	0	12000	160000	480	440	0	24000	38	34000
23S.30E.14.1333 H-7B	80-03-20	2	300	780	3	0	0	50	0	180
23S.30E.14.1333 H-7C	80-03-20	1	1400	3100	2	30	1	700	0	1400
24S.30E.23.2423 H-8A	80-02-12	0	200	3100	2	10	0	300	0	100
24S.30E.23.2423 H-8B	80-02-11	0	100	580	5	10	0	200	0	200
24S.30E.23.2423 H-8C	80-09-06	2	0	1300	0	100	0	1500	1	60
24S.31E.04.1341 H-9A	80-02-05	1	100	2600	0	10	0	100	0	60
24S.31E.04.1341 H-9B	80-02-05	1	200	780	0	10	0	200	0	50
24S.31E.04.1341 H-9C	80-05-20	1	1000	19000	2	320	2	39000	8	9000

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

EDDY COUNTY - Continued

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)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)
17S.26E.02.21243	80-05-13	--	--	--	--	--	--
17S.26E.12.331 PECOS TEN	80-06-23	--	--	--	--	--	--
21S.31E.18.2111 WIPP-28	80-03-20	5	3200	.1	--	0	0
	80-08-21	4	1300	.1	<1600	0	0
21S.31E.21.1211 WIPP-27	80-05-21	75	1000	.0	--	0	0
	80-07-24	75	2700	1.5	--	0	0
	80-08-22	89	1400	1.9	--	8	0
	80-09-20	2	520	1.8	--	0	0
21S.31E.33.1113 WIPP-30	80-03-19	13	3400	.2	--	0	0
	80-08-13	120	2300	.4	--	5	0
	80-09-24	4	60	.0	--	0	0
22S.29E.34.3423 WIPP-29	80-03-18	23	3400	.4	--	2	0
	80-08-20	320	2700	2.0	--	1	0
22S.30E.15.1433 WIPP-25	80-03-19	23	1700	.3	--	0	0
	80-08-14	110	230	.2	--	4	0
	80-09-04	5	240	.1	--	3	0
22S.30E.29.2322 WIPP-26	80-03-18	12	1400	.3	--	1	0
	80-08-18	3	200	.4	--	12	0
22S.31E.26.4434 P-18	80-05-20	3600	170000	5.0	--	1	0
23S.30E.14.1333 H-7B	80-03-20	18	220	.1	--	5	0
23S.30E.14.1333 H-7C	80-03-20	20	1200	.5	--	0	0
24S.30E.23.2423 H-8A	80-02-12	18	40	.2	--	0	0
24S.30E.23.2423 H-8B	80-02-11	43	410	.0	--	2	0
24S.30E.23.2423 H-8C	80-09-06	4	170	.1	--	0	0
24S.31E.04.1341 H-9A	80-02-05	0	380	.0	--	0	0
24S.31E.04.1341 H-9B	80-02-05	0	140	.0	--	12	0
24S.31E.04.1341 H-9C	80-05-20	360	3400	.1	--	5	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.31E.18.2111 WIPP-28	322912103485701		015	GW	80-03-20	1015	<6000	--	<2700	--
			015	GW	80-08-21	0900	<1600	--	<1100	--
21S.31E.21.1211 WIPP-27	322814103531501		015	GW	80-05-21	1130	<1800	--	<7100	--
			015	GW	80-07-24	0900	--	--	1900	--
			015	GW	80-08-22	1245	<2600	--	6300	--
			015	GW	80-09-20	0900	<2900	--	6000	--
21S.31E.33.1113 WIPP-30	322632103472201		015	GW	80-03-19	1030	<11000	--	<4500	--
			015	GW	80-08-13	1000	<1300	--	<660	--
			015	GW	80-09-24	0845	<440	--	<200	--
22S.29E.34.3423 WIPP-29	322037103580901		015	GW	80-03-18	1400	<1600	--	740	--
			015	GW	80-08-20	1200	<11000	--	18000	--
22S.30E.15.1433 WIPP-25	322336103522401		015	GW	80-03-19	1445	<7700	--	<3600	--
			015	GW	80-08-14	1200	<290	--	<170	--
			015	GW	80-09-04	1115	<230	--	<140	--
22S.30E.29.2322 WIPP-26	322200103524801		015	GW	80-03-18	1100	<4700	--	<1700	--
			015	GW	80-08-18	1300	<380	--	<220	--
22S.31E.26.4434 P-18	322121103405501		015	GW	80-05-20	1200	<15000	--	<16000	--
23S.30E.14.1333 H-7B	321820103510502		015	GW	80-03-20	1345	<56	--	19	--
23S.30E.14.1333 H-7C	321820103510503		015	GW	80-03-20	1500	<1400	--	<580	--
24S.30E.23.2423 H-8A	321218103504901		015	GW	80-02-12	1000	<200	<.4	130	<.4
24S.30E.23.2423 H-8B	321218103504902		015	GW	80-02-11	1200	.91	<.4	<19	<.4
24S.30E.23.2423 H-8C	321218103504903		015	GW	80-09-06	0830	<2600	--	<1100	--
24S.31E.04.1341 H-9A	321443103472401		015	GW	80-02-05	1030	<150	--	<38	--
24S.31E.04.1341 H-9B	321443103472402		015	GW	80-02-05	1230	<100	--	<25	--
24S.31E.04.1341 H-9C	321443103472403		015	GW	80-05-20	0830	<8000	--	7600	--

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

EDDY COUNTY - Continued

LOCAL IDENT- IFIER	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 DIS- SOLVED, EXTRAC- TION (UG/L) (80020)
21S.31E.18.2111 WIPP-28	80-03-20	<2800	--	3.6	2.7
	80-08-21	<1000	--	40	1.3
21S.31E.21.1211 WIPP-27	80-05-21	<15000	--	2.4	.07
	80-07-24	1800	--	12	--
	80-08-22	6100	--	79	4.9
	80-09-20	5800	--	24	5.8
21S.31E.33.1113 WIPP-30	80-03-19	<4500	--	98	<.01
	80-08-13	<600	--	64	.29
	80-09-24	<190	--	26	.02
22S.29E.34.3423 WIPP-29	80-03-18	730	--	1.2	2.0
	80-08-20	17000	--	17	18
22S.30E.15.1433 WIPP-25	80-03-19	<3800	--	2.7	.29
	80-08-14	<160	--	17	6.1
	80-09-04	<130	--	12	8.4
22S.30E.29.2322 WIPP-26	80-03-18	<1800	--	12	5.2
	80-08-18	<210	--	18	12
22S.31E.26.4434 F-18	80-05-20	<15000	--	240	.31
23S.30E.14.1333 H-7B	80-03-20	19	--	.98	9.7
23S.30E.14.1333 H-7C	80-03-20	<590	--	65	1.9
24S.30E.23.2423 H-8A	80-02-12	130	<.4	1.9	.08
24S.30E.23.2423 H-8B	80-02-11	<18	<.4	3.4	7.4
24S.30E.23.2423 H-8C	80-09-06	<1100	--	18	.04
24S.31E.04.1341 H-9A	80-02-05	<35	--	9.4	.15
24S.31E.04.1341 H-9B	80-02-05	<23	--	7.3	34
24S.31E.04.1341 H-9C	80-05-20	<7200	--	.31	.45

GRANT COUNTY

LOCAL IDENT- IFIER	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)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)
20S.14W.33.334	323104108180301		017	GW	80-08-21	0830	--	42.00	90	430
20S.15W.23.14212	323323108215601		017	GW	80-08-21	1030	110AVMB	--	--	810

LOCAL IDENT- IFIER	DATE OF SAMPLE	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (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)
20S.14W.33.334	80-08-21	7.6	21.5	160	44	51	9.0	25	.8	1.4
20S.15W.23.14212	80-08-21	7.3	19.5	380	200	110	25	45	1.0	1.5

QUALITY OF GROUND WATER

639

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

GRANT COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	BICAR- BONATE (MG/L AS HCO3) (00440)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED 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)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)
20S.14W.33.334	80-08-21	140	120	71	12	1.2	31	291	3.7	1
20S.15W.23.14212	80-08-21	230	180	200	52	1.0	25	573	1.2	--

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)
20S.14W.33.334	80-08-21	50	40	<1	0	14	<10	0
20S.15W.23.14212	80-08-21	--	20	--	--	--	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)
20S.14W.33.334	80-08-21	7	.3	1	0
20S.15W.23.14212	80-08-21	10	--	--	--

LEA COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)
23S.32E.20.3442 H-10A	321701103413901		025	GW	80-03-21	1130	310MGNT	410000	7.1	24.0
23S.32E.20.3442 H-10B	321701103413902		025	GW	80-03-21	1500	312CLBR	120000	8.3	24.5
23S.32E.20.3442 H-10C	321701103413903		025	GW	80-05-19	1300	312RSLRL	216000	6.3	25.0

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DENSITY (GM/ML AT 20 C) (71820)	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)
23S.32E.20.3442 H-10A	80-03-21	1.175	17000	17000	2500	2600	93000	311	87000	510
23S.32E.20.3442 H-10B	80-03-21	1.045	8100	8100	1600	1000	21000	101	22000	520
23S.32E.20.3442 H-10C	80-05-19	1.198	49000	49000	1500	11000	100000	197	--	4000

LOCAL IDENT- I- FIER	DATE OF SAMPLE	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P) (00671)
23S.32E.20.3442 H-10A	80-03-21	0	2700	160000	1.3	1.9	270000	261000	.03	.080
23S.32E.20.3442 H-10B	80-03-21	37	5600	36000	1.3	1.5	69200	65800	.01	.010
23S.32E.20.3442 H-10C	80-05-19	53	3300	190000	.7	3.2	323000	310000	.84	.060

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

LEA 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)	CHRO- MIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
23S.32E.20.3442 H-10A	80-03-21	0	1200	3900	0	120	2	1600	0	16000
23S.32E.20.3442 H-10B	80-03-21	0	500	13000	1	20	0	550	0	320
23S.32E.20.3442 H-10C	80-05-19	2	1200	120000	4	240	1	33000	15	2900

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)
23S.32E.20.3442 H-10A	80-03-21	49	5100	.2	0	0
23S.32E.20.3442 H-10B	80-03-21	15	1100	.1	0	0
23S.32E.20.3442 H-10C	80-05-19	530	22000	.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 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)
23S.32E.20.3442 H-10A	321701103413901	025	GW	80-03-21	1130	<7800	<3500	<3600	480	
23S.32E.20.3442 H-10B	321701103413902	025	GW	80-03-21	1500	<1600	<590	<610	29	
23S.32E.20.3442 H-10C	321701103413903	025	GW	80-05-19	1300	<8200	7200	<6900	10	

LOCAL IDENT- I- FIER	DATE OF SAMPLE	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L) (80020)
23S.32E.20.3442 H-10A	80-03-21	<.10
23S.32E.20.3442 H-10B	80-03-21	.08
23S.32E.20.3442 H-10C	80-05-19	.37

LUNA 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)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)
20S.05W.08.2324	323509107222801		029	GW	80-07-24	1030	110BLSN	115.00	--	--
20S.05W.33.344	323108107213701		029	GW	80-07-29	1450	120BLSN	112.00	525	--
21S.05W.29.224	322728107220701		029	GW	80-07-30	1000	110BLSN	153.00	620	--
21S.06W.27.432 BUTTERPIE	322657107262501		029	GW	80-08-13	1400	000EXRV	127.00	172	--
21S.08W.14.33223	322830107384201		029	GW	80-08-13	1000	--	79.00	--	--
21S.12W.25.421	322645108013601		029	GW	80-08-21	1430	--	58.50	--	--
22S.05W.16.234 WRIGHT WM	322349107215001		029	GW	80-07-30	1200	110BLSN	<266.00	300	--
22S.05W.23.343 HOOD WM	322223107193701		029	GW	80-07-30	1400	110BLSN	234.00	--	--
22S.06W.16.32122 SOUTH W	322344107275401		029	GW	80-08-13	1300	110BLSN	116.00	--	10
22S.06W.32.14424 STEAMPU	322111107284101		029	GW	80-08-14	1000	110BLSN	--	--	--
23S.05W.03.313 SUMAN WM	322006107205601		029	GW	80-08-14	1800	000EXRV	217.00	--	--
23S.06W.28.422 PLANK WEL	321642107271001		029	GW	80-08-14	1020	110BLSN	--	--	--
23S.12W.08.114 RIMROCK W	321928108062201		029	GW	80-08-22	1430	--	135.00	300	--
23S.12W.25.1111	321659108022701		029	GW	80-08-22	1200	--	--	340	--
24S.12W.04.112 GAGE WM	321510108052501		029	GW	80-08-21	1630	--	--	--	--
24S.12W.09.341	321340108051301		029	GW	80-08-21	1200	110BLSN	240.00	--	--
24S.13W.19.141	321223108133801		029	GW	80-08-21	1430	110BLSN	140.00	300	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

LUNA COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE, INSTAN- TANEOUS (GPM) (00059)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (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)
20S.05W.08.2324	80-07-24	100	---	510	7.9	23.0	110	0	32	7.9
20S.05W.33.344	80-07-29	---	---	475	7.6	24.0	91	0	23	8.1
21S.05W.29.224	80-07-30	---	---	470	7.7	27.0	79	0	20	7.0
21S.06W.27.432 BUTTERFIE	80-08-13	---	1.5	470	7.6	23.0	130	0	32	11
21S.08W.14.33223	80-08-13	---	---	590	7.5	24.0	230	30	64	17
21S.12W.25.421	80-08-21	---	---	525	7.6	19.0	210	11	53	19
22S.05W.16.234 WRIGHT WM	80-07-30	---	5.0	405	7.5	22.0	140	0	39	9.7
22S.05W.23.343 HOOD WM	80-07-30	---	---	490	7.5	23.0	120	0	29	12
22S.06W.16.32122 SOUTH W	80-08-13	---	1.0	520	7.7	24.0	160	3	42	14
22S.06W.32.14424 STEAMPU	80-08-14	---	---	390	7.8	22.0	100	0	31	5.4
23S.05W.03.313 SUMAN WM	80-08-14	---	---	470	7.4	26.0	86	0	23	7.0
23S.06W.28.422 PLANK WEL	80-08-14	---	---	395	7.9	22.0	83	0	23	6.3
23S.12W.08.114 RIMROCK W	80-08-22	---	---	420	8.1	26.0	110	0	35	5.6
23S.12W.25.1111	80-08-22	---	---	395	8.4	28.5	10	0	2.9	.6
24S.12W.04.112 GAGE WM	80-08-21	---	---	380	7.8	25.0	120	0	32	9.5
24S.12W.09.341	80-08-21	---	---	345	7.9	28.0	110	0	34	5.5
24S.13W.19.141	80-08-21	---	---	470	8.1	23.0	18	0	7.1	.1
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)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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)
20S.05W.08.2324	80-07-24	68	2.8	11	220	---	170	30	44	.9
20S.05W.33.344	80-07-29	73	3.3	11	220	---	170	33	19	1.6
21S.05W.29.224	80-07-30	65	3.2	10	210	---	170	22	10	1.5
21S.06W.27.432 BUTTERFIE	80-08-13	47	1.8	6.4	200	---	160	27	18	1.4
21S.08W.14.33223	80-08-13	32	.9	3.7	250	---	200	37	26	.8
21S.12W.25.421	80-08-21	25	.8	4.5	260	---	200	46	17	.8
22S.05W.16.234 WRIGHT WM	80-07-30	29	1.1	5.9	180	---	140	21	11	.7
22S.05W.23.343 HOOD WM	80-07-30	47	1.9	8.5	150	---	130	22	12	1.7
22S.06W.16.32122 SOUTH W	80-08-13	42	1.4	4.3	200	---	160	41	28	.7
22S.06W.32.14424 STEAMPU	80-08-14	45	2.0	2.4	170	---	140	28	13	.9
23S.05W.03.313 SUMAN WM	80-08-14	65	3.0	9.7	180	---	140	37	24	1.7
23S.06W.28.422 PLANK WEL	80-08-14	55	2.6	2.3	170	---	130	38	14	1.3
23S.12W.08.114 RIMROCK W	80-08-22	51	2.1	3.0	240	---	190	19	10	.8
23S.12W.25.1111	80-08-22	89	12	1.0	180	1	149	31	11	.8
24S.12W.04.112 GAGE WM	80-08-21	34	1.4	2.0	170	---	130	34	10	.5
24S.12W.09.341	80-08-21	31	1.3	3.4	160	---	120	25	15	.5
24S.13W.19.141	80-08-21	94	9.6	2.4	180	---	150	42	16	1.1
LOCAL IDENT- I- FIER	DATE OF SAMPLE	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, 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)
20S.05W.08.2324	80-07-24	85	399	4.1	---	---	110	---	---	---
20S.05W.33.344	80-07-29	93	381	3.8	---	---	200	---	---	---
21S.05W.29.224	80-07-30	81	340	4.9	---	---	0	---	---	---
21S.06W.27.432 BUTTERFIE	80-08-13	60	328	6.5	---	---	110	---	---	---
21S.08W.14.33223	80-08-13	63	395	7.1	---	---	20	---	---	---

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

LUNA COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, 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)
21S.12W.25.421	80-08-21	41	341	3.3	--	--	5	--	--	--
22S.05W.16.234 WRIGHT WM	80-07-30	84	311	6.0	--	--	50	--	--	--
22S.05W.23.343 HOOD WM	80-07-30	76	358	16	--	--	110	--	--	--
22S.06W.16.32122 SOUTH W	80-08-13	59	351	5.3	--	--	90	--	--	--
22S.06W.32.14424 STEAMPU	80-08-14	37	262	3.3	4	70	90	<1	10	12
23S.05W.03.313 SUMAN WM	80-08-14	78	356	5.8	--	--	140	--	--	--
23S.06W.28.422 PLANK WEL	80-08-14	44	268	1.2	--	--	120	--	--	--
23S.12W.08.114 RIMROCK W	80-08-22	38	286	2.0	4	50	90	<1	0	25
23S.12W.25.1111	80-08-22	33	266	1.6	4	7	110	<1	0	0
24S.12W.04.112 GAGE WM	80-08-21	38	250	2.6	--	--	120	--	--	--
24S.12W.09.341	80-08-21	32	225	1.3	4	200	50	<1	0	18
24S.13W.19.141	80-08-21	30	287	.90	--	--	210	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	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)
20S.05W.08.2324	80-07-24	<10	--	<1	--	--	--
20S.05W.33.344	80-07-29	10	--	<1	--	--	--
21S.05W.29.224	80-07-30	20	--	<1	--	--	--
21S.06W.27.432 BUTTERFIE	80-08-13	50	--	6	--	--	--
21S.08W.14.33223	80-08-13	<10	--	<1	--	--	--
21S.12W.25.421	80-08-21	<10	--	<1	--	--	--
22S.05W.16.234 WRIGHT WM	80-07-30	10	--	1	--	--	--
22S.05W.23.343 HOOD WM	80-07-30	360	--	7	--	--	--
22S.06W.16.32122 SOUTH W	80-08-13	20	--	7	--	--	--
22S.06W.32.14424 STEAMPU	80-08-14	40	0	2	.0	1	0
23S.05W.03.313 SUMAN WM	80-08-14	150	--	4	--	--	--
23S.06W.28.422 PLANK WEL	80-08-14	20	--	2	--	--	--
23S.12W.08.114 RIMROCK W	80-08-22	10	0	1	.1	1	0
23S.12W.25.1111	80-08-22	10	0	<1	.0	2	0
24S.12W.04.112 GAGE WM	80-08-21	30	--	2	--	--	--
24S.12W.09.341	80-08-21	<10	0	<1	.1	0	0
24S.13W.19.141	80-08-21	20	--	1	--	--	--

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. NGVD) (72000)	FLOW RATE, INSTAN- TANEOUS (GPM) (00059)
09N.21W.25 ROMAN C' TO W	345832109001101	031	GW	79-12-05	1300	110AVMB	--	--	--	--
10N.19W.13.224 BLACKROCK	350603108471501	031	SP	80-02-26	1300	110AVMB	--	--	--	--
10N.19W.13.444 BLACKROCK	350730108471301	031	GW	80-02-27	1400	310GLRT	1175	6441.00	100	--
10N.19W.28.343 ZUNI F-1	350344108510001	031	GW	80-07-30	1110	231CHNL	1500	6292.00	51	--
11N.17W.24.432 ECW #14	350730108344801	031	GW	79-11-06	1330	211GLLP	438	6920.00	--	--
11N.18W.21.132 ECW #1	351020108445101	031	GW	80-06-19	1055	211DKOT	345	6752.00	El.0	--
11N.20W.34.244 BOSSON SP	350826108554701	031	SP	80-03-26	1000	--	--	--	--	.10
12N.16W.17.232	351620108324301	031	SP	80-03-26	1500	310GLRT	--	--	--	10
12N.16W.30.242 RWP #29	351432108332701	031	GW	79-11-06	1600	211DLCCOC	228	6860.00	--	--
12N.17W.15.213 ECW 16	351628108370301	031	GW	79-11-13	1015	211DLCCOC	594	6900.00	--	--
17N.13W.09.321 #202	354302108131101	031	GW	80-09-03	0940	221MRSN	2120	--	--	--
17N.13W.09.321 #279	354300108130901	031	GW	80-09-03	0955	221MRSN	2100	--	--	--
19N.05W.03.222 DHOE4 COA	355446107204801	031	GW	80-08-19	1430	211FRLD	54	6621.00	--	--
19N.05W.04.333 DHOE2 PCC	355400107224201	031	GW	80-08-20	1145	211PCCP	233	6640.00	--	--
19N.05W.05.221 DHOE5 OB	355447107224301	031	GW	80-08-19	1615	211FRLD	182	6675.00	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

MCKINLEY COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
09N.21W.25 ROMAN C' TO W	79-12-05	900	7.5	--	14.0	--	270	32	98	6.7
10N.19W.13.224 BLACKROCK	80-02-26	471	7.7	--	14.0	--	140	0	47	4.3
10N.19W.13.444 BLACKROCK	80-02-27	1270	7.2	--	21.0	--	390	320	110	27
10N.19W.28.343 ZUNI F-1	80-07-30	1400	8.3	--	20.0	--	14	0	5.2	.3
11N.17W.24.432 ECW #14	79-11-06	1510	7.7	--	14.0	--	560	240	140	50
11N.18W.21.132 ECW #1	80-06-19	1300	--	--	15.5	--	--	--	--	--
11N.20W.34.244 BOSSON SP	80-03-26	325	8.3	--	8.0	--	31	0	8.8	2.1
12N.16W.17.232	80-03-26	500	8.2	--	4.0	--	280	24	100	8.3
12N.16W.30.242 RWP #29	79-11-06	900	7.8	--	14.5	--	140	0	41	9.8
12N.17W.15.213 ECW 16	79-11-13	811	8.0	--	--	--	230	0	56	21
17N.13W.09.321 #202	80-09-03	--	--	--	--	--	7	0	2.4	.2
17N.13W.09.321 #279	80-09-03	480	8.8	--	--	--	4	0	1.4	.1
19N.05W.03.222 DHOE4 COA	80-08-19	6100	12.1	--	12.0	43	--	--	6.2	--
19N.05W.04.333 DHOE2 PCC	80-08-20	5400	8.3	4.0	14.0	43	27	0	7.0	2.1
19N.05W.05.221 DHOE5 OB	80-08-19	2050	8.6	--	14.0	49	7	0	2.3	.2
LOCAL IDENT- I- FIER	DATE OF SAMPLE	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)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	HY- DROXIDE ION (MG/L AS OH) (71830)	ALKA- LITY (MG/L AS CACO3) (00410)	SULFIDE TOTAL (MG/L AS S) (00745)
09N.21W.25 ROMAN C' TO W	79-12-05	130	3.4	130	1.1	--	--	--	240	--
10N.19W.13.224 BLACKROCK	80-02-26	52	1.9	53	1.0	--	--	--	190	--
10N.19W.13.444 BLACKROCK	80-02-27	120	2.7	130	9.1	--	--	--	71	--
10N.19W.28.343 ZUNI F-1	80-07-30	330	38	--	2.0	--	--	--	360	--
11N.17W.24.432 ECW #14	79-11-06	150	2.8	160	5.2	--	--	--	320	--
11N.18W.21.132 ECW #1	80-06-19	--	--	--	--	--	--	--	--	--
11N.20W.34.244 BOSSON SP	80-03-26	78	6.1	--	.7	--	--	--	170	--
12N.16W.17.232	80-03-26	8.5	.2	--	1.7	--	--	--	260	--
12N.16W.30.242 RWP #29	79-11-06	170	6.2	170	3.8	--	--	--	330	--
12N.17W.15.213 ECW 16	79-11-13	69	2.0	73	4.2	--	--	--	270	--
17N.13W.09.321 #202	80-09-03	110	18	--	.6	--	--	--	210	--
17N.13W.09.321 #279	80-09-03	120	26	--	.6	--	--	--	220	--
19N.05W.03.222 DHOE4 COA	80-08-19	620	--	--	6.0	--	134	349	1260	.8
19N.05W.04.333 DHOE2 PCC	80-08-20	1200	102	--	6.1	1100	0	--	902	.2
19N.05W.05.221 DHOE5 OB	80-08-19	450	76	--	2.1	856	20	--	735	4.6
LOCAL IDENT- I- FIER	DATE OF SAMPLE	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, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
09N.21W.25 ROMAN C' TO W	79-12-05	110	100	.3	20	--	695	--	--	19
10N.19W.13.224 BLACKROCK	80-02-26	40	10	.3	18	--	293	--	--	1.2
10N.19W.13.444 BLACKROCK	80-02-27	540	34	.6	4.4	--	889	--	--	.03
10N.19W.28.343 ZUNI F-1	80-07-30	240	67	1.9	11	--	874	--	--	.02
11N.17W.24.432 ECW #14	79-11-06	530	15	.4	15	--	1100	--	--	.09
11N.18W.21.132 ECW #1	80-06-19	--	--	--	--	--	--	--	--	--
11N.20W.34.244 BOSSON SP	80-03-26	10	5.6	.3	17	--	229	--	--	.69
12N.16W.17.232	80-03-26	35	10	.2	11	--	331	--	--	.08
12N.16W.30.242 RWP #29	79-11-06	120	20	1.9	10	--	575	--	--	.13
12N.17W.15.213 ECW 16	79-11-13	90	20	.4	22	--	446	--	--	.14
17N.13W.09.321 #202	80-09-03	35	6.9	.2	23	310	305	--	--	--
17N.13W.09.321 #279	80-09-03	33	3.2	.2	18	313	309	--	--	--
19N.05W.03.222 DHOE4 COA	80-08-19	300	81	3.4	24	1530	1370	.00	.030	.00
19N.05W.04.333 DHOE2 PCC	80-08-20	86	1200	3.0	6.1	3040	3060	.00	.010	.00
19N.05W.05.221 DHOE5 OB	80-08-19	230	31	2.6	8.6	1090	1170	.00	.000	.00

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

MCKINLEY COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	PHOS- PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P) (00671)	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)
09N.21W.25 ROMAN C' TO W	79-12-05	--	--	--	--	--	--	--	--	--
10N.19W.13.224 BLACKROCK	80-02-26	--	--	.080	2	200	--	4	0	1
10N.19W.13.444 BLACKROCK	80-02-27	--	--	.010	2	20	--	16	0	0
10N.19W.28.343 ZUNI F-1	80-07-30	--	--	.020	1	40	--	<1	0	4
11N.17W.24.432 ECW #14	79-11-06	--	--	--	--	--	--	--	--	--
11N.18W.21.132 ECW #1	80-06-19	--	--	--	1	40	--	<1	0	0
11N.20W.34.244 BOSSON SP	80-03-26	--	--	--	--	--	--	--	--	--
12N.16W.17.232	80-03-26	--	--	--	--	--	--	--	--	--
12N.16W.30.242 RWP #29	79-11-06	--	--	--	--	--	--	--	--	--
12N.17W.15.213 ECW 16	79-11-13	--	--	--	--	--	--	--	--	--
17N.13W.09.321 #202	80-09-03	--	--	--	--	--	--	--	--	--
17N.13W.09.321 #279	80-09-03	--	--	--	--	--	--	--	--	--
19N.05W.03.222 DHOE4 COA	80-08-19	4.600	16	.010	2	--	210	0	0	2
19N.05W.04.333 DHOE2 PCC	80-08-20	.900	.70	.000	2	--	590	0	0	1
19N.05W.05.221 DHOE5 OB	80-08-19	.210	.89	.020	1	--	370	<1	0	0

LOCAL IDENT- I- FIER	DATE OF SAMPLE	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	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)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)
09N.21W.25 ROMAN C' TO W	79-12-05	40	--	--	<1	--	--	--	--	--
10N.19W.13.224 BLACKROCK	80-02-26	450	0	--	60	.0	--	2	1	--
10N.19W.13.444 BLACKROCK	80-02-27	800	0	--	340	.0	--	0	0	--
10N.19W.28.343 ZUNI F-1	80-07-30	40	3	--	20	.0	--	0	0	--
11N.17W.24.432 ECW #14	79-11-06	--	--	--	--	--	--	--	--	--
11N.18W.21.132 ECW #1	80-06-19	--	1	--	--	.0	--	0	0	--
11N.20W.34.244 BOSSON SP	80-03-26	730	--	--	40	--	--	--	--	--
12N.16W.17.232	80-03-26	30	--	--	20	--	--	--	--	--
12N.16W.30.242 RWP #29	79-11-06	--	--	--	--	--	--	--	--	--
12N.17W.15.213 ECW 16	79-11-13	<10	--	--	<1	--	--	--	--	--
17N.13W.09.321 #202	80-09-03	--	--	--	--	--	23	0	--	--
17N.13W.09.321 #279	80-09-03	--	--	--	--	--	<10	0	--	--
19N.05W.03.222 DHOE4 COA	80-08-19	70	4	20	10	.2	--	1	--	160
19N.05W.04.333 DHOE2 PCC	80-08-20	60	4	130	10	.0	--	0	--	540
19N.05W.05.221 DHOE5 OB	80-08-19	50	4	10	5	.2	--	0	--	70

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)
10N.19W.13.224 BLACKROCK	350603108471501		031	SP	80-02-26	1300	6.3	--	<1.8	--
10N.19W.13.444 BLACKROCK	350730108471301		031	GW	80-02-27	1400	<15	--	9.3	--
10N.19W.28.343 ZUNI F-1	350344108510001		031	GW	80-07-30	1110	<15	--	<7.3	--
11N.18W.21.132 ECW #1	351020108445101		031	GW	80-06-19	1055	<12	<.6	<5.5	<.7
17N.13W.09.321 #202	354302108131101		031	GW	80-09-03	0940	7.2	--	<2.1	--
17N.13W.09.321 #279	354300108130901		031	GW	80-09-03	0955	<4.8	--	<2.3	--
19N.05W.03.222 DHOE4 COA	355446107204801		031	GW	80-08-19	1430	<42	--	<33	--
19N.05W.04.333 DHOE2 PCC	355400107224201		031	GW	80-08-20	1145	<58	--	<32	--
19N.05W.05.221 DHOE5 OB	355447107224301		031	GW	80-08-19	1615	<20	--	<10	--

QUALITY OF GROUND WATER

645

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

MCKINLEY 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)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L) (80020)	STRON- TIUM 90 DIS- SOLVED (PCI/L) (13503)
10N.19W.13.224 BLACKROCK	80-02-26	<1.8	--	--	1.7	--	--
10N.19W.13.444 BLACKROCK	80-02-27	9.5	--	--	<.6	--	--
10N.19W.28.343 ZUNI F-1	80-07-30	<7.0	--	--	5.0	--	--
11N.18W.21.132 ECW #1	80-06-19	<5.3	<.7	--	--	--	--
17N.13W.09.321 #202	80-09-03	<2.0	--	.33	--	.26	--
17N.13W.09.321 #279	80-09-03	<2.3	--	.16	--	.05	--
19N.05W.03.222 DHOE4 COA	80-08-19	<31	--	.03	--	.03	134
19N.05W.04.333 DHOE2 PCC	80-08-20	<31	--	.35	--	.33	--
19N.05W.05.221 DHOE5 OB	80-08-19	<9.7	--	.14	--	.19	--

OTERO 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)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)
14S.06E.11.1	330706106215701		035	GW	79-10-29	1400	--	27.75	92	20000

LOCAL IDENT- I- FIER	DATE OF SAMPLE	PH FIELD (UNITS) (00400)	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 NA) (00933)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
14S.06E.11.1	79-10-29	7.6	5400	5300	850	800	1700	10	1700	13

LOCAL IDENT- I- FIER	DATE OF SAMPLE	ALKA- LINITY (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)
14S.06E.11.1	79-10-29	87	700	5600	2.0	25	9770

LOCAL IDENT- I- FIER	DATE OF SAMPLE	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)
14S.06E.11.1	79-10-29	6.4	1300	60	100

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

RIO ARriba 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 OF WELL, TOTAL (FEET) (72008)
22N.10E.21.SEBASTIAN MAR	360800105530501		039	GW	80-07-25	--	--	--	171	240
24N.07E.26.122 CCC SPRIN	361717106094801		039	SP	80-08-14	1100	--	--	--	--
24N.08E.25.313	361653106030701		039	GW	80-08-16	1000	--	25.54	--	53
25N.06E.00.000 OJITO DE	362212106172501		039	SP	80-08-07	1030	--	--	--	--
25N.06E.03.220 CHOLEJO S	362601106164201		039	SP	80-08-06	1500	--	--	--	--
26N.06E.28.134 SIERRA SP	362728106182701		039	SP	80-08-06	1330	--	--	--	--
26N.09E.08.122 PETACA	363100106003601		039	GW	80-08-14	1530	--	22.30	--	--
26N.09E.24.143 COMANCHE	362827105562801		039	GW	80-08-14	1430	--	--	--	E750
27N.08E.04.424 KIOWA SPR	363602106053101		039	SP	80-08-11	1500	--	--	--	--
28N.07E.06.321 HOPEWELL	364125106140401		039	SP	80-07-15	1530	--	--	--	--
28N.07E.28.132	363803106120301		039	SP	80-08-12	1200	--	--	--	--
28N.09E.31.330 SAWMILL S	363645106020601		039	SP	80-08-12	1500	--	--	--	--
29N.07E.12.212 CISNEROS	364611106090001		039	SP	80-07-15	1030	--	--	--	--
29N.08E.29.441 BISCARA S	364249106064701		039	SP	80-08-12	1030	--	--	--	--
31N.07E.01.222	365728106085301		039	GW	80-08-13	1100	--	9.10	--	16
32N.07E.28.231 DEER FLY	365859106122801		039	SP	80-08-13	0945	--	--	--	--
LOCAL IDENT- I- FIER	DATE OF SAMPLE	ELEV. OF LAND SURFACE DATUM (FT. NGVD) (72000)	FLOW RATE, INSTAN- TANEOUS (GPM) (00059)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (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)
22N.10E.21.SEBASTIAN MAR	80-07-25	6843.00	--	240	7.6	--	130	0	42	7.0
24N.07E.26.122 CCC SPRIN	80-08-14	--	--	650	7.5	18.5	240	0	68	17
24N.08E.25.313	80-08-16	--	--	1500	7.6	21.5	410	160	120	27
25N.06E.00.000 OJITO DE	80-08-07	--	--	423	7.1	15.0	190	0	65	7.1
25N.06E.03.220 CHOLEJO S	80-08-06	--	--	520	7.2	11.5	270	0	91	9.9
26N.06E.28.134 SIERRA SP	80-08-06	--	E1.0	730	7.5	9.5	470	180	140	30
26N.09E.08.122 PETACA	80-08-14	--	--	215	7.0	13.5	99	7	29	6.4
26N.09E.24.143 COMANCHE	80-08-14	--	--	310	8.0	20.0	110	0	36	4.4
27N.08E.04.424 KIOWA SPR	80-08-11	--	--	50	8.5	11.5	17	2	5.2	.9
28N.07E.06.321 HOPEWELL	80-07-15	--	--	55	5.5	11.5	19	12	5.3	1.4
28N.07E.28.132	80-08-12	--	--	155	7.7	12.0	67	0	22	2.9
28N.09E.31.330 SAWMILL S	80-08-12	--	--	160	7.0	17.0	68	10	19	4.9
29N.07E.12.212 CISNEROS	80-07-15	--	--	200	7.1	11.0	96	0	31	4.4
29N.08E.29.441 BISCARA S	80-08-12	--	--	162	7.7	9.0	74	0	21	5.2
31N.07E.01.222	80-08-13	--	--	310	6.9	15.0	140	0	43	8.2
32N.07E.28.231 DEER FLY	80-08-13	--	--	240	8.0	8.5	110	0	37	5.3
LOCAL IDENT- I- FIER	DATE OF SAMPLE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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)
22N.10E.21.SEBASTIAN MAR	80-07-25	7.2	.3	2.9	--	--	140	4.4	2.0	.3
24N.07E.26.122 CCC SPRIN	80-08-14	49	1.4	2.3	370	--	300	41	10	1.2
24N.08E.25.313	80-08-16	170	3.7	6.5	300	--	246	200	110	.8
25N.06E.00.000 OJITO DE	80-08-07	12	.4	2.8	260	--	213	11	4.5	.2
25N.06E.03.220 CHOLEJO S	80-08-06	11	.3	4.3	330	--	271	28	3.8	.2
26N.06E.28.134 SIERRA SP	80-08-06	13	.3	2.9	360	--	295	180	1.2	.3
26N.09E.08.122 PETACA	80-08-14	7.5	.3	2.5	110	--	92	16	7.6	.2
26N.09E.24.143 COMANCHE	80-08-14	26	1.1	5.6	190	--	150	5.9	3.9	.5
27N.08E.04.424 KIOWA SPR	80-08-11	1.5	.2	1.2	14	2	15	8.6	1.7	.1
28N.07E.06.321 HOPEWELL	80-07-15	2.3	.2	1.4	8	--	7	2.3	.7	.3

QUALITY OF GROUND WATER

647

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

RIO ARriba COUNTY - Continued

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)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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)
28N.07E.28.132	80-08-12	3.9	.2	3.7	100	--	75	2.6	.8	.1
28N.09E.31.330 SAWMILL S	80-08-12	5.9	.3	4.1	74	--	58	21	3.8	.2
29N.07E.12.212 CISNEROS	80-07-15	4.8	.2	2.0	120	--	98	4.5	1.6	.4
29N.08E.29.441 BISCARA S	80-08-12	5.3	.3	2.6	98	--	75	7.0	2.8	.3
31N.07E.01.222	80-08-13	8.5	.3	4.1	180	--	150	4.7	6.9	.3
32N.07E.28.231 DEER FLY	80-08-13	7.7	.3	1.0	140	--	120	5.8	2.3	.4

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L AS (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)
22N.10E.21.SEBASTIAN MAR	80-07-25	9.4	160	--	--	--	130	--	--	--
24N.07E.26.122 CCC SPRIN	80-08-14	35	405	.00	4	100	70	<1	0	0
24N.08E.25.313	80-08-16	39	843	4.9	--	--	370	--	--	--
25N.06E.00.000 OJITO DE	80-08-07	15	246	.00	--	--	60	--	--	--
25N.06E.03.220 CHOLEJO S	80-08-06	11	322	.11	--	--	40	--	--	--
26N.06E.28.134 SIERRA SP	80-08-06	9.3	554	.00	1	40	110	<1	0	0
26N.09E.08.122 PETACA	80-08-14	25	151	.42	--	--	40	--	--	--
26N.09E.24.143 COMANCHE	80-08-14	85	267	1.9	4	70	40	3	0	0
27N.08E.04.424 KIOWA SPR	80-08-11	9.1	38	.10	--	--	40	--	--	--
28N.07E.06.321 HOPEWELL	80-07-15	19	38	.18	--	--	10	--	--	--
28N.07E.28.132	80-08-12	51	133	.17	--	--	9	--	--	--
28N.09E.31.330 SAWMILL S	80-08-12	32	126	.00	1	90	40	<1	0	1
29N.07E.12.212 CISNEROS	80-07-15	43	152	.31	2	40	0	<1	0	3
29N.08E.29.441 BISCARA S	80-08-12	48	137	.00	--	--	40	--	--	--
31N.07E.01.222	80-08-13	40	213	1.5	--	--	30	--	--	--
32N.07E.28.231 DEER FLY	80-08-13	36	171	.65	--	--	20	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	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)
22N.10E.21.SEBASTIAN MAR	80-07-25	10	--	--	--	--	--
24N.07E.26.122 CCC SPRIN	80-08-14	80	0	360	.0	0	0
24N.08E.25.313	80-08-16	40	--	8	--	--	--
25N.06E.00.000 OJITO DE	80-08-07	60	--	350	--	--	--
25N.06E.03.220 CHOLEJO S	80-08-06	<10	--	<1	--	--	--
26N.06E.28.134 SIERRA SP	80-08-06	20	0	5	.0	3	0
26N.09E.08.122 PETACA	80-08-14	20	--	4	--	--	--
26N.09E.24.143 COMANCHE	80-08-14	10	0	4	.0	1	0
27N.08E.04.424 KIOWA SPR	80-08-11	200	--	6	--	--	--
28N.07E.06.321 HOPEWELL	80-07-15	180	--	4	--	--	--
28N.07E.28.132	80-08-12	20	--	2	--	--	--
28N.09E.31.330 SAWMILL S	80-08-12	40	0	10	.0	0	0
29N.07E.12.212 CISNEROS	80-07-15	<10	0	<1	.0	0	0
29N.08E.29.441 BISCARA S	80-08-12	30	--	2	--	--	--
31N.07E.01.222	80-08-13	110	--	20	--	--	--
32N.07E.28.231 DEER FLY	80-08-13	20	--	2	--	--	--

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SANDOVAL 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)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)
12N.01W.14.111	351627106550401		043	GW	80-06-20	1230	--	107.20	120	1180
13N.01W.16.230	352127106564201		043	GW	80-06-19	1230	--	--	50	1650
14N.01E.08.144	352730106513701		043	GW	80-06-19	1430	--	10.00	--	3900

LOCAL IDENT- I- FIER	DATE OF SAMPLE	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (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)
12N.01W.14.111	80-06-20	8.3	20.0	71	0	19	5.7	240	12	2.5
13N.01W.16.230	80-06-19	7.5	16.0	300	13	84	21	280	7.1	4.6
14N.01E.08.144	80-06-19	7.6	15.5	1700	1500	330	220	480	5.0	8.4

LOCAL IDENT- I- FIER	DATE OF SAMPLE	BICAR- BONATE (MG/L AS HCO3) (00440)	ALKA- LINITY (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 CONSTITUENTS, DIS- SOLVED (MG/L) (70301)
12N.01W.14.111	80-06-20	410	336	210	4.6	1.9	27	734
13N.01W.16.230	80-06-19	350	287	510	39	1.3	22	1160
14N.01E.08.144	80-06-19	250	205	2500	17	.9	19	3720

LOCAL IDENT- I- FIER	DATE OF SAMPLE	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)
12N.01W.14.111	80-06-20	4.7	230	50	4
13N.01W.16.230	80-06-19	4.7	230	<10	2
14N.01E.08.144	80-06-19	4.2	180	30	20

SAN JUAN 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)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)
NR032.0336X1582 COTTONWO	363113108333501		045	GW	80-03-12	1000	110AVMB	--	12	--
			045	GW	80-09-11	1415	110AVMB	--	12	--
NR032.0407X1145 CHACO R	363503108342101		045	GW	80-03-12	1115	110AVMB	--	7.5	--
			045	GW	80-09-11	1245	110AVMB	--	7.5	--
NR032.0505X0180 CHACO R	364325108353001		045	GW	80-03-12	1045	110AVMB	--	9.5	--
			045	GW	80-09-11	1000	110AVMB	--	9.5	--
NR048.0898X1715 HUNTER W	361503108243801		045	GW	80-03-10	1530	110AVMB	--	8.0	--
			045	GW	80-09-09	1530	110AVMB	--	8.0	--
NR049.0115X0950 BRIMHALL	362145108310901		045	GW	80-03-11	1010	110AVMB	--	8.1	--
			045	GW	80-09-10	1700	110AVMB	--	8.1	--
NR049.0335X1618 CHACO R	361554108333201		045	GW	80-03-10	1145	110AVMB	--	13	--
			045	GW	80-09-10	1300	110AVMB	--	13	--
NR049.0367X0886 BURNHAM4	362217108335701		045	GW	80-07-16	1030	110AVMB	--	--	--
NR049.0380X0891 BURNHAM	362213108340501		045	GW	80-03-11	1400	110AVMB	--	9.5	--
			045	GW	80-09-10	1415	110AVMB	--	9.5	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SAN JUAN 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 OF WELL, TOTAL (FEET) (72008)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)
NR049.0381X0895 BURNHAM1	362211108340601		045	GW	80-07-16	0910	110AVMB	--	--	--
NR049.0385X0894 BURNHAM	362212108340701		045	GW	80-03-11	1300	110AVMB	--	7.5	--
			045	GW	80-09-10	1530	110AVMB	--	7.5	--
NR049.0386X0898 BURNHAM2	362210108341001		045	GW	80-07-16	0940	110AVMB	--	--	--
NR049.0391X0871 BURNHAM3	362208108341201		045	GW	80-07-16	1010	110AVMB	--	--	--
NR066.0668X0380 CHACO R.	361142108220401		045	GW	80-03-10	1430	110AVMB	--	8.0	--
			045	GW	80-09-09	1415	110AVMB	--	8.0	--
21N.11W.07.242 CHACO R W	360415108022201		045	GW	80-03-10	1330	110AVMB	--	--	--
			045	GW	80-09-08	1130	110AVMB	--	--	--
22N.09W.12.4 KIMBETO WEL	360851107441501		045	GW	80-05-29	1435	--	--	--	--
22N.09W.19.144 DH10K KIM	360731107494701		045	GW	80-08-12	1830	211PCCF	--	486	--
22N.10W.07.211 DH3K KIMB	360941107561601		045	GW	80-06-17	1110	211FRLD	--	58	--
			045	GW	80-08-12	1230	211FRLD	--	58	--
22N.10W.08.244 DH5K KIMB	360916107543901		045	GW	80-06-17	1445	211PCCF	--	474	--
22N.10W.10.341 DH8K KIMB	360857107531001		045	GW	80-04-03	1030	211FRLD	--	59	--
22N.10W.17.422 DH4K KIMB	360823107544001		045	GW	80-04-03	1150	211FRLD	--	190	--
22N.10W.18.211 DH2K KIMB	360849107561801		045	GW	80-04-03	1155	211FRLD	--	205	--
22N.10W.18.411 DH1K KIMB	360822107561601		045	GW	80-04-03	--	211PCCF	--	285	--
22N.10W.22.244 DH7K KIMB	360734107523101		045	GW	80-08-21	1000	211FRLD	--	185	--
22N.10W.24.211 DH9K KIMB	360754107505201		045	GW	80-08-12	1730	211FRLD	--	130	--
22N.11W.26.432 ESCAVADO	360621107582301		045	GW	80-03-10	1040	110AVMB	--	7.5	--
			045	GW	80-09-08	1445	110AVMB	--	7.5	--
22N.13W.24.3222A CHACO R	360733108103201		045	GW	80-03-10	1130	110AVMB	--	8.5	--
			045	GW	80-09-09	1015	110AVMB	--	8.5	--
22N.13W.24.342 LA VIDAL	360721108103201		045	GW	80-07-16	1200	211MENF	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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)
NR032.0336X1582 COTTONWO	80-03-12	--	5195.00	2800	7.9	4.5	11.0	.4	--	290
	80-09-11	--	5195.00	2840	7.8	24.0	17.5	.1	--	280
NR032.0407X1145 CHACO R	80-03-12	--	5130.00	1640	7.7	7.5	9.0	.3	--	240
	80-09-11	--	5130.00	1650	7.6	25.0	18.5	.1	--	200
NR032.0505X0180 CHACO R	80-03-12	--	4980.00	2620	8.5	7.0	9.0	.3	--	75
	80-09-11	--	4980.00	2620	8.4	22.5	18.5	.1	--	67
NR048.0898X1715 HUNTER W	80-03-10	--	5545.00	8050	7.9	14.5	11.0	.5	--	--
	80-09-09	--	5545.00	15000	7.5	21.0	18.0	.4	--	2100
NR049.0115X0950 BRIMHALL	80-03-11	--	5390.00	2070	7.8	8.0	7.0	--	--	260
	80-09-10	--	5390.00	2160	7.9	17.0	20.0	.1	--	260
NR049.0335X1618 CHACO R	80-03-10	--	5405.00	820	7.6	16.5	10.0	.5	--	81
	80-09-10	--	5405.00	770	7.7	27.0	18.0	.1	--	68
NR049.0367X0886 BURNHAM4	80-07-16	--	5325.00	5900	6.7	--	15.0	--	--	1300
NR049.0380X0891 BURNHAM	80-03-11	--	5317.00	1150	7.6	9.5	8.0	.2	--	130
	80-09-10	--	5317.00	1020	7.7	29.0	16.0	.1	--	100
NR049.0381X0895 BURNHAM1	80-07-16	--	5317.00	2500	7.2	--	14.0	--	--	350
NR049.0385X0894 BURNHAM	80-03-11	--	5319.00	1400	7.5	12.5	11.0	.3	--	110
	80-09-10	--	5319.00	1380	7.5	17.5	17.0	.1	--	92
NR049.0386X0898 BURNHAM2	80-07-16	--	5320.00	5100	7.3	--	14.5	--	--	1100
NR049.0391X0871 BURNHAM3	80-07-16	--	5325.00	7500	7.2	--	14.5	--	--	760

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SAN JUAN COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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)
NR066.0668X0380 CHACO R.	80-03-10	--	5650.00	1220	7.8	13.0	8.0	.3	--	79
	80-09-09	--	5650.00	1240	7.7	22.5	18.5	.1	--	70
21N.11W.07.242 CHACO R W	80-03-10	--	6018.00	920	8.0	16.5	6.0	.4	--	65
	80-09-08	--	6018.00	950	8.0	25.0	20.0	1.6	--	57
22N.09W.12.4 KIMBETO WEL	80-05-29	--	--	13800	7.8	--	17.0	--	--	190
22N.09W.19.144 DH10K KIM	80-08-12	--	6380.00	12000	7.7	--	15.0	--	76	--
22N.10W.07.211 DH3K KIMB	80-06-17	--	6190.00	--	--	--	--	--	--	--
	80-08-12	--	6190.00	12000	9.5	--	17.0	--	140	1300
22N.10W.08.244 DH5K KIMB	80-06-17	--	6305.00	15000	7.7	--	17.0	--	--	160
22N.10W.10.341 DH8K KIMB	80-04-03	--	6285.00	20400	12.1	5.5	12.0	--	--	950
22N.10W.17.422 DH4K KIMB	80-04-03	--	6330.00	4150	11.2	14.0	14.5	--	--	7
22N.10W.18.211 DH2K KIMB	80-04-03	--	6290.00	4000	7.7	9.0	14.0	--	--	38
22N.10W.18.411 DH1K KIMB	80-04-03	--	6245.00	4030	9.0	8.0	14.5	--	--	12
22N.10W.22.244 DH7K KIMB	80-08-21	--	6300.00	1700	10.0	--	14.5	--	61	--
22N.10W.24.211 DH9K KIMB	80-08-12	--	6340.00	1150	8.0	--	15.0	--	26	18
22N.11W.26.432 ESCAVADO	80-03-10	--	6120.00	1260	7.7	7.5	5.0	.6	--	80
	80-09-08	--	6120.00	1470	8.0	24.5	20.0	.5	--	98
22N.13W.24.3222A CHACO R	80-03-10	--	5880.00	1020	7.9	10.0	8.5	2.9	--	120
	80-09-09	--	5880.00	910	8.4	19.0	19.0	.2	--	34
22N.13W.24.342 LA VIDAL	80-07-16	--	5865.00	1620	8.0	--	15.0	--	--	22

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)	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS K) (00933)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
NR032.0336X1582 COTTONWO	80-03-12	16	91	14	520	14	520	4.3	330	0
	80-09-11	9	88	13	550	15	--	5.0	330	0
NR032.0407X1145 CHACO R	80-03-12	0	74	12	270	8.0	270	4.6	350	0
	80-09-11	0	60	11	280	9.2	--	6.0	350	0
NR032.0505X0180 CHACO R	80-03-12	0	13	10	550	32	550	4.3	220	4
	80-09-11	0	12	8.8	550	33	--	5.2	210	2
NR048.0898X1715 HUNTER W	80-03-10	--	--	--	--	--	--	7.7	470	0
	80-09-09	1600	470	210	3600	38	--	24	600	0
NR049.0115X0950 BRIMBALL	80-03-11	0	89	8.5	360	10	360	3.6	346	0
	80-09-10	0	90	8.4	410	11	--	5.5	350	0
NR049.0335X1618 CHACO R	80-03-10	0	28	2.6	150	7.5	150	2.2	260	0
	80-09-10	0	24	1.8	140	7.6	--	3.0	270	0
NR049.0367X0886 BURNHAM4	80-07-16	1000	380	72	900	11	--	15	370	0
NR049.0380X0891 BURNHAM	80-03-11	0	44	5.1	190	7.5	190	2.9	480	0
	80-09-10	0	33	4.1	200	9.0	--	3.7	340	0
NR049.0381X0895 BURNHAM1	80-07-16	27	110	17	420	9.8	--	9.2	390	0
NR049.0385X0894 BURNHAM	80-03-11	0	37	5.1	300	13	300	3.7	500	0
	80-09-10	0	30	3.9	290	14	--	3.4	440	0
NR049.0386X0898 BURNHAM2	80-07-16	780	300	79	830	11	--	13	380	0
NR049.0391X0871 BURNHAM3	80-07-16	420	210	55	1400	22	--	8.2	430	0
NR066.0668X0380 CHACO R.	80-03-10	0	26	3.2	260	13	260	3.0	460	0
	80-09-09	0	23	2.8	250	14	--	3.9	434	0
21N.11W.07.242 CHACO R W	80-03-10	0	22	2.3	190	11	190	1.7	386	0
	80-09-08	0	20	1.7	210	12	--	2.5	380	0
22N.09W.12.4 KIMBETO WEL	80-05-29	0	56	12	3100	98	--	13	--	--
22N.09W.19.144 DH10K KIM	80-08-12	--	40	--	2500	--	--	12	710	--
22N.10W.07.211 DH3K KIMB	80-06-17	770	--	--	--	--	--	--	0	109
	80-08-12	690	520	.1	2500	30	--	16	--	69
22N.10W.08.244 DH5K KIMB	80-06-17	0	42	13	3000	104	--	17	465	54
22N.10W.10.341 DH8K KIMB	80-04-03	690	370	.0	1600	23	--	220	0	155
22N.10W.17.422 DH4K KIMB	80-04-03	0	2.8	.0	850	140	--	11	0	780
22N.10W.18.211 DH2K KIMB	80-04-03	0	12	1.9	980	69	--	5.0	1960	0
22N.10W.18.411 DH1K KIMB	80-04-03	0	2.8	1.2	990	125	--	4.5	1380	128
22N.10W.22.244 DH7K KIMB	80-08-21	--	1.8	<.0	390	--	--	2.5	244	295
22N.10W.24.211 DH9K KIMB	80-08-12	0	6.5	.4	250	26	--	2.3	468	--
22N.11W.26.432 ESCAVADO	80-03-10	0	29	1.6	240	12	270	4.7	0	0
	80-09-08	0	35	2.3	300	14	--	4.7	426	0
22N.13W.24.3222A CHACO R	80-03-10	0	39	6.0	200	7.9	200	2.2	390	0
	80-09-09	0	11	1.4	220	17	--	2.9	384	4
22N.13W.24.342 LA VIDAL	80-07-16	0	7.6	.7	370	34	--	3.7	328	0

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SAN JUAN COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	HY- DROXIDE ION (MG/L AS OH) (71830)	ALKA- LINITY (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)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)
NR032.0336X1582 COTTONWO	80-03-12	--	270	--	1100	38	1.4	11	1980	1950
	80-09-11	--	271	--	1100	34	1.5	12	2020	1970
NR032.0407X1145 CHACO R	80-03-12	--	290	--	540	13	.7	12	1130	1110
	80-09-11	--	287	--	530	11	.8	15	1270	1100
NR032.0505X0180 CHACO R	80-03-12	--	190	--	930	120	2.2	7.4	1780	1760
	80-09-11	--	176	--	860	110	2.1	8.6	1680	1670
NR048.0898X1715 HUNTER W	80-03-10	--	390	--	4200	25	1.5	--	6660	--
	80-09-09	--	492	--	8500	58	1.4	22	14200	13200
NR049.0115X0950 BRIMHALL	80-03-11	--	280	--	740	14	1.4	12	1450	1400
	80-09-10	--	287	--	770	13	1.5	16	1720	1490
NR049.0335X1618 CHACO R	80-03-10	--	210	--	200	6.8	1.1	9.9	519	537
	80-09-10	--	221	--	150	6.5	1.3	13	462	476
NR049.0367X0886 BURNHAM4	80-07-16	--	250	.0	2600	55	1.5	17	4170	4200
NR049.0380X0891 BURNHAM	80-03-11	--	390	--	240	29	1.2	11	724	771
	80-09-10	--	279	--	240	14	1.3	15	720	687
NR049.0381X0895 BURNHAM1	80-07-16	--	320	.0	890	33	1.7	11	1690	1690
NR049.0385X0894 BURNHAM	80-03-11	--	410	--	350	13	1.7	14	936	985
	80-09-10	--	361	--	330	11	1.8	16	1000	922
NR049.0386X0898 BURNHAM2	80-07-16	--	300	.1	2500	57	1.4	15	4140	3980
NR049.0391X0871 BURNHAM3	80-07-16	--	340	.1	3400	85	1.3	12	5820	5380
NR066.0668X0380 CHACO R.	80-03-10	--	380	--	270	7.6	1.1	13	806	820
	80-09-09	--	360	--	260	8.1	1.3	17	775	804
21N.11W.07.242 CHACO R W	80-03-10	--	317	--	180	6.2	.8	9.1	590	604
	80-09-08	--	312	--	160	6.0	1.0	13	578	603
22N.09W.12.4 KIMBETO WEL	80-05-29	--	790	--	7.9	4400	.5	11	--	8080
22N.09W.19.144 DH10K KIM	80-08-12	--	582	.4	2.4	3900	1.1	8.9	5910	2850
22N.10W.07.211 DH3K KIMB	80-06-17	110	181	--	--	--	--	--	--	--
	80-08-12	160	610	.2	3.8	4600	.4	3.5	8840	8010
22N.10W.08.244 DH5K KIMB	80-06-17	--	471	--	27	4600	1.1	11	9560	8000
22N.10W.10.341 DH8K KIMB	80-04-03	1400	258	2.5	3.1	200	.8	.6	5150	3990
22N.10W.17.422 DH4K KIMB	80-04-03	45	1300	--	80	240	2.0	24	2180	2040
22N.10W.18.211 DH2K KIMB	80-04-03	--	1610	--	3.0	410	2.6	10	2460	2380
22N.10W.18.411 DH1K KIMB	80-04-03	--	1350	--	210	500	3.9	13	2450	2430
22N.10W.22.244 DH7K KIMB	80-08-21	--	691	2.6	140	32	4.4	58	1120	--
22N.10W.24.211 DH9K KIMB	80-08-12	--	384	1.4	160	16	1.5	13	715	684
22N.11W.26.432 ESCAVADO	80-03-10	--	0	--	330	8.8	.6	12	815	628
	80-09-08	--	349	--	360	9.5	.6	17	957	941
22N.13W.24.3222A CHACO R	80-03-10	--	320	--	220	7.7	1.2	10	663	679
	80-09-09	--	322	--	170	7.7	1.0	13	652	621
22N.13W.24.342 LA VIDAL	80-07-16	--	269	7.2	310	31	2.6	14	981	903

LOCAL IDENT- I- FIER	DATE OF SAMPLE	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)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, TOTAL (MG/L AS N) (00600)
NR032.0336X1582 COTTONWO	80-03-12	--	--	1.4	--	.040	--	.37	--	1.8
	80-09-11	--	--	3.8	--	.000	--	.55	--	4.4
NR032.0407X1145 CHACO R	80-03-12	--	--	.06	--	.460	--	.10	--	.62
	80-09-11	--	--	.56	--	.430	--	.51	--	1.5
NR032.0505X0180 CHACO R	80-03-12	--	--	.04	--	1.200	--	.20	--	1.4
	80-09-11	--	--	.36	--	1.500	--	.60	--	2.5
NR048.0898X1715 HUNTER W	80-03-10	--	--	1.3	--	.030	--	.38	--	1.7
	80-09-09	--	--	.00	--	.010	--	.54	--	.55
NR049.0115X0950 BRIMHALL	80-03-11	--	--	1.5	--	.030	--	.24	--	1.8
	80-09-10	--	--	1.6	--	.000	--	.34	--	1.9

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SAN JUAN COUNTY - Continued

LOCAL IDENT- IFIER	DATE OF SAMPLE	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)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, TOTAL (MG/L AS N) (00600)
NR049.0335X1618 CHACO R	80-03-10	--	--	.04	--	.090	--	.25	--	.38
	80-09-10	--	--	.03	--	.030	--	.38	--	.44
NR049.0367X0886 BURNHAM4	80-07-16	.57	.070	--	.64	--	.260	--	.34	--
NR049.0380X0891 BURNHAM	80-03-11	--	--	.01	--	.520	--	.27	--	.80
	80-09-10	--	--	.00	--	1.200	--	.60	--	1.8
NR049.0381X0895 BURNHAM1	80-07-16	.24	.010	--	.25	--	.610	--	.26	--
NR049.0385X0894 BURNHAM	80-03-11	--	--	.04	--	.400	--	.58	--	1.0
	80-09-10	--	--	.21	--	.280	--	.60	--	1.1
NR049.0386X0898 BURNHAM2	80-07-16	.00	.010	--	.00	--	1.100	--	.30	--
NR049.0391X0871 BURNHAM3	80-07-16	.00	.010	--	.00	--	1.600	--	.00	--
NR066.0668X0380 CHACO R.	80-03-10	--	--	.01	--	.350	--	.17	--	.53
	80-09-09	--	--	1.6	--	.350	--	.44	--	2.4
21N.11W.07.242 CHACO R W	80-03-10	--	--	.05	--	.120	--	1.3	--	1.5
	80-09-08	--	--	.20	--	.000	--	.49	--	.69
22N.09W.12.4 KIMBETO WEL	80-05-29	--	--	--	--	--	--	--	--	--
22N.09W.19.144 DH10K KIM	80-08-12	.00	.000	--	.00	--	2.000	--	1.1	--
22N.10W.07.211 DH3K KIMB	80-06-17	--	--	--	--	--	--	--	--	--
	80-08-12	.00	.030	--	.00	--	11.000	--	8.0	--
22N.10W.08.244 DH5K KIMB	80-06-17	.02	.030	--	.05	--	1.900	--	20	--
22N.10W.10.341 DH8K KIMB	80-04-03	.04	.100	--	.14	--	12.000	--	4.0	--
22N.10W.17.422 DH4K KIMB	80-04-03	.04	.020	--	.06	--	4.900	--	--	--
22N.10W.18.211 DH2K KIMB	80-04-03	.03	.550	--	.58	--	.040	--	1.3	--
22N.10W.18.411 DH1K KIMB	80-04-03	.01	.000	--	.01	--	1.200	--	.40	--
22N.10W.22.244 DH7K KIMB	80-08-21	.00	.020	--	.00	--	2.000	--	.90	--
22N.10W.24.211 DH9K KIMB	80-08-12	.52	.010	--	.53	--	.150	--	1.3	--
22N.11W.26.432 ESCAVADO	80-03-10	--	--	.13	--	.270	--	12	--	12
	80-09-08	--	--	.03	--	.370	--	3.4	--	3.8
22N.13W.24.3222A CHACO R	80-03-10	--	--	.02	--	.030	--	.16	--	.21
	80-09-09	--	--	.10	--	.210	--	1.2	--	1.5
22N.13W.24.342 LA VIDAL	80-07-16	.00	.020	--	.00	--	.530	--	.77	--

LOCAL IDENT- IFIER	DATE OF SAMPLE	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHOPH. DISSOL. (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	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)
NR032.0336X1582 COTTONWO	80-03-12	.000	--	0	1	10	<1	110	<1	0
	80-09-11	.010	--	10	1	20	<1	120	<1	0
NR032.0407X1145 CHACO R	80-03-12	.000	--	0	1	30	<1	90	<1	0
	80-09-11	.030	--	0	2	40	<1	80	<1	0
NR032.0505X0180 CHACO R	80-03-12	.110	--	0	3	20	<1	2700	<1	0
	80-09-11	.110	--	10	3	20	<1	2700	<1	0
NR048.0898X1715 HUNTER W	80-03-10	.000	--	0	1	--	--	160	--	10
	80-09-09	.010	--	0	0	20	<1	250	<1	20
NR049.0115X0950 BRIMHALL	80-03-11	.000	--	0	1	40	2	70	<1	0
	80-09-10	.040	--	0	2	40	<1	0	<1	20
NR049.0335X1618 CHACO R	80-03-10	.010	--	0	1	50	<1	60	<1	0
	80-09-10	.020	--	10	2	60	1	110	<1	0
NR049.0367X0886 BURNHAM4	80-07-16	--	.040	--	3	--	--	--	0	10
NR049.0380X0891 BURNHAM	80-03-11	.000	--	0	3	30	<1	120	<1	0
	80-09-10	.050	--	0	6	30	<1	150	<1	0
NR049.0381X0895 BURNHAM1	80-07-16	--	.000	--	3	--	--	--	0	10
NR049.0385X0894 BURNHAM	80-03-11	.080	--	0	4	40	<1	140	<1	0
	80-09-10	.050	--	0	6	40	<1	110	<1	20
NR049.0386X0898 BURNHAM2	80-07-16	--	.000	--	1	--	--	--	0	10
NR049.0391X0871 BURNHAM3	80-07-16	--	.020	--	4	--	--	--	0	10

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SAN JUAN COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- ORTHOPH DISSOL. (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	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)
NR066.0668X0380 CHACO R.	80-03-10	.000	--	0	2	40	<1	90	<1	0
	80-09-09	.020	--	0	1	50	<1	100	<1	20
21N.11W.07.242 CHACO R W	80-03-10	.690	--	50	3	70	<1	50	<1	0
	80-09-08	.020	--	10	2	70	<1	60	<1	0
22N.09W.12.4 KIMBETO WEL	80-05-29	--	--	--	--	--	--	1100	--	--
22N.09W.19.144 DH10K KIM	80-08-12	--	.000	--	1	--	--	910	0	10
22N.10W.07.211 DH3K KIMB	80-06-17	--	--	--	--	--	--	--	--	--
	80-08-12	--	.000	--	0	--	--	100	0	10
22N.10W.08.244 DH5K KIMB	80-06-17	--	.040	--	0	--	--	--	1	0
22N.10W.10.341 DH8K KIMB	80-04-03	--	.000	--	2	--	--	--	0	30
22N.10W.17.422 DH4K KIMB	80-04-03	--	.690	--	7	--	--	--	0	0
22N.10W.18.211 DH2K KIMB	80-04-03	--	.060	--	1	--	--	--	0	0
22N.10W.18.411 DH1K KIMB	80-04-03	--	.000	--	2	--	--	--	0	0
22N.10W.22.244 DH7K KIMB	80-08-21	--	.170	--	5	--	--	840	<1	0
22N.10W.24.211 DH9K KIMB	80-08-12	--	.160	--	7	--	--	180	<1	10
22N.11W.26.432 ESCAVADO	80-03-10	1.500	--	20	3	110	<1	50	<1	0
	80-09-08	.450	--	10	5	170	<1	10	<1	0
22N.13W.24.3222A CHACO R	80-03-10	.220	--	0	1	30	<1	80	<1	0
	80-09-09	.310	--	10	4	70	<1	70	<1	0
22N.13W.24.342 LA VIDAI	80-07-16	--	.000	--	1	--	--	--	4	10

LOCAL IDENT- I- FIER	DATE OF SAMPLE	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
NR032.0336X1582 COTTONWO	80-03-12	<3	<10	2100	0	34	120	.0	<10
	80-09-11	<3	<10	4000	<10	37	160	.0	<10
NR032.0407X1145 CHACO R	80-03-12	<3	<10	2700	1	33	1500	.0	<10
	80-09-11	<3	<10	5900	<10	35	1500	.0	<10
NR032.0505X0180 CHACO R	80-03-12	<3	<10	1200	1	200	110	.2	<10
	80-09-11	<3	<10	750	<10	220	89	.0	<10
NR048.0898X1715 HUNTER W	80-03-10	--	--	--	0	--	--	.1	--
	80-09-09	<3	<10	940	<10	290	120	.0	<10
NR049.0115X0950 BRIMHALL	80-03-11	<3	<10	27	0	43	210	.0	<10
	80-09-10	<3	<10	120	<10	49	260	.0	<10
NR049.0335X1618 CHACO R	80-03-10	<3	<10	5500	0	17	640	.0	<10
	80-09-10	<3	<10	1800	<10	17	470	.1	<10
NR049.0367X0886 BURNHAM4	80-07-16	--	0	30	1	40	2500	.0	--
NR049.0380X0891 BURNHAM	80-03-11	<3	<10	7300	1	24	1200	.0	<10
	80-09-10	<3	<10	6500	<10	24	910	.1	<13
NR049.0381X0895 BURNHAM1	80-07-16	--	1	40	2	50	1500	.0	--
NR049.0385X0894 BURNHAM	80-03-11	<3	<10	12000	<10	38	900	.0	<10
	80-09-10	7	<10	17000	<10	27	740	.0	<10
NR049.0386X0898 BURNHAM2	80-07-16	--	1	1600	0	90	1100	.0	--
NR049.0391X0871 BURNHAM3	80-07-16	--	0	50	0	60	3800	.0	--
NR066.0668X0380 CHACO R.	80-03-10	<3	<10	200	1	15	1400	.1	<10
	80-09-09	<3	<10	160	<10	21	1300	.0	<10
21N.11W.07.242 CHACO R W	80-03-10	<3	<10	32	0	20	660	.0	<10
	80-09-08	<3	<10	460	<10	19	570	.0	<10
22N.09W.12.4 KIMBETO WEL	80-05-29	--	--	210	--	--	--	--	--
22N.09W.19.144 DH10K KIM	80-08-12	--	30	3700	40	270	80	.2	--
22N.10W.07.211 DH3K KIMB	80-06-17	--	--	--	--	--	--	--	--
	80-08-12	--	6	170	5	140	20	.2	--
22N.10W.08.244 DH5K KIMB	80-06-17	--	6	100	7	--	60	.4	--
22N.10W.10.341 DH8K KIMB	80-04-03	--	20	30	76	1800	10	.4	--
22N.10W.17.422 DH4K KIMB	80-04-03	--	4	30	2	80	0	.0	--
22N.10W.18.211 DH2K KIMB	80-04-03	--	2	40	5	90	0	.0	--
22N.10W.18.411 DH1K KIMB	80-04-03	--	2	50	10	100	0	.0	--
22N.10W.22.244 DH7K KIMB	80-08-21	--	4	100	3	20	3	.0	--
22N.10W.24.211 DH9K KIMB	80-08-12	--	6	70	0	10	7	.0	--
22N.11W.26.432 ESCAVADO	80-03-10	<3	<10	54	<10	28	200	.0	<10
	80-09-08	<3	<10	20	<10	27	1400	.0	<10
22N.13W.24.3222A CHACO R	80-03-10	<3	<10	17	0	21	1	.0	<10
	80-09-09	<3	<10	22	<10	16	340	.0	<10
22N.13W.24.342 LA VIDAI	80-07-16	--	1	290	0	20	60	.2	--

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SAN JUAN COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)
NR032.0336X1582 COTTONWO	80-03-12	1	4	1500	<6.0
	80-09-11	2	4	1600	<6.0
NR032.0407X1145 CHACO R	80-03-12	1	0	1200	<6.0
	80-09-11	3	0	1200	<6.0
NR032.0505X0180 CHACO R	80-03-12	1	0	1000	<6.0
	80-09-11	0	0	990	<6.0
NR048.0898X1715 HUNTER W	80-03-10	0	0	---	---
	80-09-09	3	0	12000	<6.0
NR049.0115X0950 BRIMHALL	80-03-11	1	5	1400	<6.0
	80-09-10	1	4	1500	<6.0
NR049.0335X1618 CHACO R	80-03-10	1	0	480	<6.0
	80-09-10	3	0	450	<6.0
NR049.0367X0886 BURNHAM4	80-07-16	---	0	3600	---
NR049.0380X0891 BURNHAM	80-03-11	1	0	570	<6.0
	80-09-10	2	0	480	<6.0
NR049.0381X0895 BURNHAM1	80-07-16	---	0	1700	---
NR049.0385X0894 BURNHAM	80-03-11	0	0	610	<6.0
	80-09-10	0	0	540	<6.0
NR049.0386X0898 BURNHAM2	80-07-16	---	0	3300	---
NR049.0391X0871 BURNHAM3	80-07-16	---	0	4600	---
NR066.0668X0380 CHACO R.	80-03-10	1	0	470	<6.0
	80-09-09	3	0	430	<6.0
21N.11W.07.242 CHACO R W	80-03-10	1	0	430	<6.0
	80-09-08	0	0	420	<6.0
22N.09W.12.4 KIMBETO WEL	80-05-29	---	---	---	---
22N.09W.19.144 DH10K KIM	80-08-12	---	0	1900	---
22N.10W.07.211 DH3K KIMB	80-06-17	---	---	---	---
	80-08-12	---	0	3200	---
22N.10W.08.244 DH5K KIMB	80-06-17	---	0	---	---
22N.10W.10.341 DH8K KIMB	80-04-03	---	1	23000	---
22N.10W.17.422 DH4K KIMB	80-04-03	---	0	90	---
22N.10W.18.211 DH2K KIMB	80-04-03	---	0	460	---
22N.10W.18.411 DH1K KIMB	80-04-03	---	0	240	---
22N.10W.22.244 DH7K KIMB	80-08-21	---	0	40	---
22N.10W.24.211 DH9K KIMB	80-08-12	---	0	90	---
22N.11W.26.432 ESCAVADO	80-03-10	0	0	490	<6.0
	80-09-08	2	0	700	<6.0
22N.13W.24.3222A CHACO R	80-03-10	1	1	530	<6.0
	80-09-09	3	0	300	<6.0
22N.13W.24.342 LA VIDAL	80-07-16	---	0	160	---

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)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)
23N.12W.06.4411 AMW6-1 C	361513108090701	045	GW	80-02-07	0950	211FRLD	84.60	162	162	---
		045	GW	80-08-14	1130	211FRLD	---	---	---	---
23N.12W.07.2233TL7-2 OB	361447108090901	045	GW	80-02-08	0930	211FRLD	44.95	60	60	---
23N.12W.07.2322 TL7-2 CO	361446108090801	045	GW	80-02-07	0915	211FRLD	---	150	148	---
23N.12W.07.2333 BISTI DH	361435108093001	045	GW	80-02-07	0835	211PCCF	---	350	350	---
23N.12W.08.1144 TL8-1 OB	361446108083701	045	GW	80-03-04	0900	211FRLD	33.42	67	69	---
23N.12W.08.2111 BISTI DH	361457108081901	045	GW	80-03-04	0940	211PCCF	83.06	394	394	---
23N.12W.17.2111 BISTI DH	361407108081901	045	GW	80-03-04	1040	211PCCF	48.68	274	274	---
23N.13W.17.334 DE-NA-2IN	361318108151401	045	GW	80-03-10	1315	110AVMB	---	8.0	---	---
		045	GW	80-09-09	1300	110AVMB	---	8.0	---	---
27N.08W.28.22 BOLACK 10C	363254107410001	045	GW	80-05-29	1100	---	---	---	---	---
30N.15W.13.414 SJ13-2 CO	364845108214201	045	GW	80-03-05	1640	211FRLD	160.20	715	715	---
30N.15W.23.441 SJ23-4 CD	364744108225001	045	GW	80-03-05	1500	211PCCF	123.90	730	730	---
30N.15W.24.423 SJ24-4 CD	364750108214701	045	GW	80-03-05	1600	211FRLD	111.00	582	582	---

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SAN JUAN COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT.) (72000)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE, WATER (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)
23N.12W.06.4411 AMW6-1 C	80-02-07	92	--	6500	11.8	--	14.0	--	--	58
	80-08-14	--	--	7600	11.8	--	18.0	--	94	56
23N.12W.07.2233TL7-2 OB	80-02-08	9.0	--	7850	10.0	--	--	--	--	20
23N.12W.07.2322 TL7-2 CO	80-02-07	74	--	7000	8.4	--	--	--	--	110
23N.12W.07.2333 BISTI DH	80-02-07	118	--	7400	8.4	--	--	--	--	76
23N.12W.08.1144 TL8-1 OB	80-03-04	5.0	--	10000	7.6	--	--	--	--	300
23N.12W.08.2111 BISTI DH	80-03-04	200	--	8000	7.4	6.0	14.5	--	--	48
23N.12W.17.2111 BISTI DH	80-03-04	86	--	8900	8.1	14.0	14.5	--	--	160
23N.13W.17.334 DE-NA-ZIN	80-03-10	--	5780.00	1610	7.9	13.0	7.0	.7	--	190
	80-09-09	--	5780.00	1900	7.9	20.5	18.5	.3	--	180
27N.08W.28.22 BOLACK 10C	80-05-29	--	--	1150	10.2	--	16.0	--	--	11
30N.15W.13.414 SJ13-2 CO	80-03-05	590	5370.00	8100	8.1	15.0	15.5	--	--	66
30N.15W.23.441 SJ23-4 CD	80-03-05	613	5290.00	16000	7.4	--	--	--	--	300
30N.15W.24.423 SJ24-4 CD	80-03-05	546	5370.00	23000	12.0	16.0	15.0	--	--	550

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 NA) (00933)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)
23N.12W.06.4411 AMW6-1 C	80-02-07	0	23	.0	1400	80	1400	9.1	0	102
	80-08-14	0	22	.0	1400	82	--	8.4	--	103
23N.12W.07.2233TL7-2 OB	80-02-08	0	3.0	3.1	1900	184	1900	14	364	205
23N.12W.07.2322 TL7-2 CO	80-02-07	0	29	9.4	2000	83	2000	11	1170	16
23N.12W.07.2333 BISTI DH	80-02-07	0	21	5.4	1700	86	1700	10	650	16
23N.12W.08.1144 TL8-1 OB	80-03-04	0	65	30	3300	85	3300	22	990	0
23N.12W.08.2111 BISTI DH	80-03-04	0	16	1.8	1700	108	1700	13	160	0
23N.12W.17.2111 BISTI DH	80-03-04	0	42	12	2400	84	2400	12	260	0
23N.13W.17.334 DE-NA-ZIN	80-03-10	0	63	6.8	350	12	350	2.7	390	0
	80-09-09	0	60	6.1	370	13	--	4.0	394	0
27N.08W.28.22 BOLACK 10C	80-05-29	0	3.6	.6	190	24	--	1.4	--	--
30N.15W.13.414 SJ13-2 CO	80-03-05	0	20	3.7	1800	97	1800	8.2	1610	16
30N.15W.23.441 SJ23-4 CD	80-03-05	200	110	4.6	3400	86	3400	12	120	0
30N.15W.24.423 SJ24-4 CD	80-03-05	0	210	3.3	3600	68	3600	31	0	382

LOCAL IDENT- I- FIER	DATE OF SAMPLE	HY- DROXIDE ION (MG/L AS OH) (71830)	ALKA- LINITY (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)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)
23N.12W.06.4411 AMW6-1 C	80-02-07	110	170	.3	160	1900	1.2	41	3080	3640
	80-08-14	91	450	.8	110	1900	1.2	34	3390	3750
23N.12W.07.2233TL7-2 OB	80-02-08	--	640	--	3200	300	.9	54	1430	5860
23N.12W.07.2322 TL7-2 CO	80-02-07	--	986	.6	3400	350	1.2	11	6290	5820
23N.12W.07.2333 BISTI DH	80-02-07	--	559	.7	48	2400	1.4	-9.3	4580	4200
23N.12W.08.1144 TL8-1 OB	80-03-04	--	812	1.1	7200	110	.5	12	11300	11200
23N.12W.08.2111 BISTI DH	80-03-04	--	131	.2	360	2600	1.9	4.9	4530	4780
23N.12W.17.2111 BISTI DH	80-03-04	--	213	.5	2800	1700	1.7	8.2	6880	6980
23N.13W.17.334 DE-NA-ZIN	80-03-10	--	320	--	600	18	.8	11	1250	1250
	80-09-09	--	323	--	610	17	.9	14	1470	1280
27N.08W.28.22 BOLACK 10C	80-05-29	--	230	--	150	6.3	2.6	10	--	504
30N.15W.13.414 SJ13-2 CO	80-03-05	--	1340	.2	100	2000	2.7	10	4790	4760
30N.15W.23.441 SJ23-4 CD	80-03-05	--	98	.9	1100	5000	2.8	14	9410	9650
30N.15W.24.423 SJ24-4 CD	80-03-05	--	636	140	120	6000	1.0	4.5	9940	10400

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SAN JUAN COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	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)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, TOTAL (MG/L AS N) (00600)
23N.12W.06.4411 AMW6-1 C	80-02-07	.38	.021	--	.40	--	10.000	--	4.0	--
	80-08-14	.00	.010	--	.00	--	6.100	--	5.9	--
23N.12W.07.2233TL7-2 OB	80-02-08	--	--	--	--	--	--	--	--	--
23N.12W.07.2322 TL7-2 CO	80-02-07	1.8	.000	--	1.8	--	.060	--	1.2	--
23N.12W.07.2333 BISTI DH	80-02-07	.04	.010	--	.05	--	1.600	--	.90	--
23N.12W.08.1144 TL8-1 OB	80-03-04	.39	.190	--	.58	--	.230	--	2.0	--
23N.12W.08.2111 BISTI DH	80-03-04	.03	.000	--	.03	--	3.000	--	.70	--
23N.12W.17.2111 BISTI DH	80-03-04	.00	.000	--	.00	--	2.100	--	.50	--
23N.13W.17.334 DE-NA-ZIN	80-03-10	--	--	2.5	--	.040	--	.35	--	2.9
	80-09-09	--	--	3.1	--	.020	--	.46	--	3.6
27N.08W.28.22 BOLACK 10C	80-05-29	--	--	--	--	--	--	--	--	--
30N.15W.13.414 SJ13-2 CO	80-03-05	.03	.000	--	.03	--	1.200	--	1.1	--
30N.15W.23.441 SJ23-4 CD	80-03-05	.03	.000	--	.03	--	12.000	--	4.0	--
30N.15W.24.423 SJ24-4 CD	80-03-05	.10	.010	--	.11	--	19.000	--	4.0	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	PHOS- PHORUS, ORTHOPH DISSOL. (MG/L AS P) (00665)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	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)
23N.12W.06.4411 AMW6-1 C	80-02-07	--	.030	--	2	--	220	0	0
	80-08-14	--	.010	--	3	--	230	0	10
23N.12W.07.2233TL7-2 OB	80-02-08	--	--	--	--	--	560	--	--
23N.12W.07.2322 TL7-2 CO	80-02-07	--	.010	--	0	--	540	1	10
23N.12W.07.2333 BISTI DH	80-02-07	--	.010	--	1	--	550	9	0
23N.12W.08.1144 TL8-1 OB	80-03-04	--	.020	--	0	--	640	2	10
23N.12W.08.2111 BISTI DH	80-03-04	--	.010	--	0	--	390	4	0
23N.12W.17.2111 BISTI DH	80-03-04	--	.000	--	0	--	470	3	10
23N.13W.17.334 DE-NA-ZIN	80-03-10	.000	--	0	1	20	<1	70	<1
	80-09-09	.100	--	20	1	20	<1	90	<1
27N.08W.28.22 BOLACK 10C	80-05-29	--	--	--	--	--	460	--	--
30N.15W.13.414 SJ13-2 CO	80-03-05	--	.010	--	0	--	1200	1	10
30N.15W.23.441 SJ23-4 CD	80-03-05	--	.000	--	0	--	300	2	10
30N.15W.24.423 SJ24-4 CD	80-03-05	--	.070	--	0	--	70	0	10

LOCAL IDENT- I- FIER	DATE OF SAMPLE	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
23N.12W.06.4411 AMW6-1 C	80-02-07	--	12	70	43	20	10	.2	--
	80-08-14	--	11	60	19	20	10	.1	--
23N.12W.07.2233TL7-2 OB	80-02-08	--	--	--	--	--	--	--	--
23N.12W.07.2322 TL7-2 CO	80-02-07	--	8	40	10	150	20	.1	--
23N.12W.07.2333 BISTI DH	80-02-07	--	8	20	38	200	20	.2	--
23N.12W.08.1144 TL8-1 OB	80-03-04	--	13	60	4	270	80	.0	--
23N.12W.08.2111 BISTI DH	80-03-04	--	13	30	33	210	30	.0	--
23N.12W.17.2111 BISTI DH	80-03-04	--	11	30	3	240	50	.0	--
23N.13W.17.334 DE-NA-ZIN	80-03-10	<3	<10	<10	0	34	17	.0	<10
	80-09-09	<3	<10	<10	<10	41	38	.0	<10
27N.08W.28.22 BOLACK 10C	80-05-29	--	--	350	--	--	--	--	--
30N.15W.13.414 SJ13-2 CO	80-03-05	--	9	40	63	130	70	.1	--
30N.15W.23.441 SJ23-4 CD	80-03-05	--	16	30	390	150	40	.1	--
30N.15W.24.423 SJ24-4 CD	80-03-05	--	0	120	0	170	20	.4	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SAN JUAN COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)
23N.12W.06.4411 AMW6-1 C	80-02-07	--	1	660	--
	80-08-14	--	1	600	--
23N.12W.07.2233 TL7-2 OB	80-02-08	--	--	--	--
23N.12W.07.2322 TL7-2 CO	80-02-07	--	0	1800	--
23N.12W.07.2333 BISTI DH	80-02-07	--	0	800	--
23N.12W.08.1144 TL8-1 OB	80-03-04	--	1	8700	--
23N.12W.08.2111 BISTI DH	80-03-04	--	0	800	--
23N.12W.17.2111 BISTI DH	80-03-04	--	0	2000	--
23N.13W.17.334 DE-NA-ZIN	80-03-10	0	4	970	<6.0
	80-09-09	1	5	990	<6.0
27N.08W.28.22 BOLACK 10C	80-05-29	--	--	--	--
30N.15W.13.414 SJ13-2 CO	80-03-05	--	0	1100	--
30N.15W.23.441 SJ23-4 CD	80-03-05	--	1	4300	--
30N.15W.24.423 SJ24-4 CD	80-03-05	--	3	8900	--

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	80-03-12	1000	<37	1.0	<15	1.1	
		045	GW	80-09-11	1415	<31	.6	<15	1.8	
NR032.0407X1145 CHACO R	363503108342101	045	GW	80-03-12	1115	<18	3.0	<8.2	1.4	
		045	GW	80-09-11	1245	<19	2.6	<8.3	1.7	
NR032.0505X0180 CHACO R	364325108353001	045	GW	80-03-12	1045	<25	1.9	<14	1.4	
		045	GW	80-09-11	1000	<21	.6	<13	.6	
NR048.0898X1715 HUNTER W	361503108243801	045	GW	80-03-10	1530	<120	<.4	<48	3.0	
		045	GW	80-09-09	1530	<190	1.4	<96	14	
NR049.0115X0950 BRIMHALL	362145108310901	045	GW	80-03-11	1010	<27	3.5	<10	1.7	
		045	GW	80-09-10	1700	<26	<.4	<12	1.2	
NR049.0335X1618 CHACO R	361554108333201	045	GW	80-03-10	1145	<7.2	2.4	<3.8	1.3	
		045	GW	80-09-10	1300	<5.8	1.4	4.8	.8	
NR049.0367X0886 BURNHAM4	362217108335701	045	GW	80-07-16	1030	<63	--	<32	--	
NR049.0380X0891 BURNHAM	362213108340501	045	GW	80-03-11	1400	<11	<.5	<5.4	<.5	
		045	GW	80-09-10	1415	<7.8	<.4	<4.8	<.5	
NR049.0381X0895 BURNHAM1	362211108340601	045	GW	80-07-16	0910	<22	--	<14	--	
NR049.0385X0894 BURNHAM	362212108340701	045	GW	80-03-11	1300	<14	1.8	<6.5	<.9	
		045	GW	80-09-10	1530	<11	<1.1	<6.6	1.3	
NR049.0386X0898 BURNHAM2	362210108341001	045	GW	80-07-16	0940	<45	--	<30	--	
NR049.0391X0871 BURNHAM3	362208108341201	045	GW	80-07-16	1010	<70	--	<47	--	
NR066.0668X0380 CHACO R.	361142108220401	045	GW	80-03-10	1430	<13	<.4	<6.2	<.4	
		045	GW	80-09-09	1415	<9.9	<.4	<5.9	<.4	
21N.11W.07.242 CHACO R W	360415108022201	045	GW	80-03-10	1330	11	53	<4.1	26	
		045	GW	80-09-08	1130	<10	1.4	<4.6	1.5	
22N.09W.19.144 DH10K KIM	360731107494701	045	GW	80-08-12	1830	<150	--	<95	--	
22N.10W.07.211 DH3K KIMB	360941107561601	045	GW	80-08-12	1230	<180	--	<94	--	
22N.10W.08.244 DH5K KIMB	360916107543901	045	GW	80-06-17	1445	<500	--	<340	--	
22N.10W.10.341 DH8K KIMB	360857107531001	045	GW	80-04-03	1030	<180	--	160	--	
22N.10W.17.422 DH4K KIMB	360823107544001	045	GW	80-04-03	1150	<54	--	<30	--	
22N.10W.18.211 DH2K KIMB	360849107561801	045	GW	80-04-03	1155	<29	--	<21	--	
22N.10W.18.411 DH1K KIMB	360822107561601	045	GW	80-04-03	--	<38	--	<20	--	
22N.10W.22.244 DH7K KIMB	360734107523101	045	GW	80-08-21	1000	<17	--	<8.3	--	
22N.10W.24.211 DH9K KIMB	360754107505201	045	GW	80-08-12	1730	<10	--	<5.5	--	
22N.11W.26.432 ESCAVADO	360621107582301	045	GW	80-03-10	1040	15	780	<5.7	260	
		045	GW	80-09-08	1445	<190	<.4	<96	64	
22N.13W.24.3222A CHACO R	360733108103201	045	GW	80-03-10	1130	<11	<.4	5.4	.8	
		045	GW	80-09-09	1015	<9.3	27	<4.4	18	
22N.13W.24.342 LA VIDAL	360721108103201	045	GW	80-07-16	1200	<13	--	<7.9	--	
23N.12W.06.4411 AMW6-1 C	361513108090701	045	GW	80-02-07	0950	<40	--	<44	--	
		045	GW	80-08-14	1130	<72	--	<46	--	

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SAN JUAN 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 DIS- SOLVED, EXTRAC- TION (UG/L) (80020)
NR032.0336X1582 COTTONWO	80-03-12	<15	1.2	--	--
	80-09-11	<15	1.7	--	--
NR032.0407X1145 CHACO R	80-03-12	<8.5	1.4	--	--
	80-09-11	<8.1	1.6	--	--
NR032.0505X0180 CHACO R	80-03-12	<15	1.4	--	--
	80-09-11	<13	.6	--	--
NR048.0898X1715 HUNTER W	80-03-10	<49	3.2	--	--
	80-09-09	<89	14	--	--
NR049.0115X0950 BRIMHALL	80-03-11	<11	1.8	--	--
	80-09-10	<11	1.2	--	--
NR049.0335X1618 CHACO R	80-03-10	<3.9	1.4	--	--
	80-09-10	4.6	.8	--	--
NR049.0367X0886 BURNHAM4	80-07-16	<30	--	.12	2.7
NR049.0380X0891 BURNHAM	80-03-11	<5.5	<.5	--	--
	80-09-10	<4.6	<.5	--	--
NR049.0381X0895 BURNHAM1	80-07-16	<14	--	.18	5.6
NR049.0385X0894 BURNHAM	80-03-11	<6.7	<.9	--	--
	80-09-10	<6.3	1.2	--	--
NR049.0386X0898 BURNHAM2	80-07-16	<28	--	.13	1.9
NR049.0391X0871 BURNHAM3	80-07-16	<44	--	.17	2.8
NR066.0668X0380 CHACO R.	80-03-10	<6.4	<.4	--	--
	80-09-09	<5.7	<.4	--	--
21N.11W.07.242 CHACO R W	80-03-10	<4.2	26	--	--
	80-09-08	<4.4	1.4	--	--
22N.09W.19.144 DH10K KIM	80-08-12	<91	--	1.5	.18
22N.10W.07.211 DH3K KIMB	80-08-12	<91	--	2.0	<.01
22N.10W.08.244 DH5K KIMB	80-06-17	<320	--	--	.11
22N.10W.10.341 DH8K KIMB	80-04-03	160	--	--	<.01
22N.10W.17.422 DH4K KIMB	80-04-03	<31	--	--	.05
22N.10W.18.211 DH2K KIMB	80-04-03	<22	--	--	.14
22N.10W.18.411 DH1K KIMB	80-04-03	<21	--	--	1.0
22N.10W.22.244 DH7K KIMB	80-08-21	<8.0	--	.08	2.7
22N.10W.24.211 DH9K KIMB	80-08-12	<5.3	--	.03	.63
22N.11W.26.432 ESCAVADO	80-03-10	<5.9	270	--	--
	80-09-08	<6.9	<.4	--	--
22N.13W.24.3222A CHACO R	80-03-10	5.6	.9	--	--
	80-09-09	<4.2	17	--	--
22N.13W.24.342 LA VIDAL	80-07-16	<7.6	--	.06	2.5
23N.12W.06.4411 AMW6-1 C	80-02-07	--	--	--	.04
	80-08-14	<44	--	.27	<.01

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)
23N.12W.07.2322 TL7-2 CO	361446108090801	045	GW	80-02-07	0915	<68	--	<53	---	
23N.12W.07.2333 BISTI DH	361435108093001	045	GW	80-02-07	0835	<63	--	<53	---	
23N.12W.08.1144 TL8-1 OB	361446108083701	045	GW	80-03-04	0900	<160	--	<80	---	
23N.12W.08.2111 BISTI DH	361457108081901	045	GW	80-03-04	0940	<58	--	<47	---	
23N.12W.17.2111 BISTI DH	361457108081901	045	GW	80-03-04	1040	<77	--	<57	---	
23N.13W.17.334 DE-NA-ZIN	361318108151401	045	GW	80-03-10	1315	<19	.8	<9.0	.8	
		045	GW	80-09-09	1300	<17	<.4	<9.2	.5	
30N.15W.13.414 SJ13-2 CO	364845108214201	045	GW	80-03-05	1640	<72	--	<47	---	
30N.15W.23.441 SJ23-4 CD	364744108225001	045	GW	80-03-05	1500	<77	--	<100	---	
30N.15W.24.423 SJ24-4 CD	364750108214701	045	GW	80-03-05	1600	<180	--	<130	---	

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SAN JUAN 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 (PCI/L RADON METHOD (09511)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L) (80020)
23N.12W.07.2322 TL7-2 CO	80-02-07	--	--	--	.68
23N.12W.07.2333 BISTI DH	80-02-07	--	--	--	.07
23N.12W.08.1144 TL8-1 OB	80-03-04	--	--	--	4.1
23N.12W.08.2111 BISTI DH	80-03-04	--	--	--	.45
23N.12W.17.2111 BISTI DH	80-03-04	--	--	--	.34
23N.13W.17.334 DE-NA-ZIN	80-03-10	<9.3	.9	--	--
	80-09-09	<8.8	.5	--	--
30N.15W.13.414 SJ13-2 CO	80-03-05	--	--	--	.02
30N.15W.23.441 SJ23-4 CD	80-03-05	--	--	--	.40
30N.15W.24.423 SJ24-4 CD	80-03-05	<140	--	--	.09

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)
10S.05W.21.223	332553107211101	051	GW	80-08-07	1200	000EXRV	89.00	--	--
10S.06W.34.3123	332349107270301	051	GW	80-07-16	0930	112SNTF	77.00	--	--
11S.03W.18.123 NARROWS W	332132107112001	051	GW	80-08-07	1700	112SNTF	126.00	--	--
11S.04W.32.4131	331832107161701	051	GW	80-07-18	0900	112SNTF	33.00	--	--
11S.06W.32.422	331834107282301	051	GW	80-07-25	0930	--	--	--	--
12S.04W.29.421	331412107160001	051	GW	80-08-11	1400	112SNTF	480.00	--	--
12S.05W.06.313	331736107240701	051	GW	80-07-25	1100	112SNTF	--	--	--
13S.04W.13.143	331048107122701	051	GW	80-07-16	1400	112SNTF	105.00	470	380
13S.07W.34.230 SALADO WE	330819107322701	051	GW	80-08-22	1300	000EXRV	--	--	--
15S.07W.01.2231	330217107303201	051	GW	80-08-22	1100	000EXRV	--	--	--
19S.05W.05.141	324118107225501	051	GW	80-07-24	1300	110BLSN	212.00	--	--
19S.05W.28.211	323802107213001	051	GW	80-07-24	1200	110BLSN	184.00	--	--
19S.06W.03.3434 N CEMETA	324039107265001	051	GW	80-07-31	1200	110BLSN	263.00	--	--
19S.07W.28.3431 COTTON W	323717107341101	051	GW	80-08-12	1100	110AVMB	18.00	--	150

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 (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)
10S.05W.21.223	80-08-07	--	--	--	--	350	7.1	24.0	130	0
10S.06W.34.3123	80-07-16	--	--	--	--	980	7.7	20.0	290	44
11S.03W.18.123 NARROWS W	80-08-07	--	--	--	--	550	8.0	<32.0	130	17
11S.04W.32.4131	80-07-18	70	--	--	--	3600	7.7	26.0	530	370
11S.06W.32.422	80-07-25	500	30	--	--	2100	7.3	22.5	520	370
12S.04W.29.421	80-08-11	600	--	2000	--	1650	7.6	28.0	310	250
12S.05W.06.313	80-07-25	500	30	500	5.0	700	7.8	19.0	170	12
13S.04W.13.143	80-07-16	498	--	--	--	660	7.8	22.5	200	44
13S.07W.34.230 SALADO WE	80-08-22	--	--	--	--	415	7.4	19.0	180	6
15S.07W.01.2231	80-08-22	--	--	--	--	305	7.6	19.0	120	0
19S.05W.05.141	80-07-24	--	--	--	E1.5	510	7.8	25.5	120	0
19S.05W.28.211	80-07-24	--	--	740	--	432	7.8	23.5	100	0
19S.06W.03.3434 N CEMETA	80-07-31	--	10	--	--	402	7.9	21.0	76	0
19S.07W.28.3431 COTTON W	80-08-12	--	10	--	9.0	690	7.4	18.5	270	19

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SIERRA COUNTY - Continued

LOCAL IDENT- I- PIER	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)	BICAR- BONATE (MG/L AS HCO3) (00440)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
10S.05W.21.223	80-08-07	40	6.4	29	1.1	2.6	190	150	22	8.5
10S.06W.34.3123	80-07-16	100	8.6	100	2.6	5.4	300	246	89	130
11S.03W.18.123 NARROWS W	80-08-07	38	7.9	56	2.2	6.7	130	110	57	58
11S.04W.32.4131	80-07-18	200	8.2	510	9.6	37	200	164	59	1000
11S.06W.32.422	80-07-25	160	30	220	4.2	14	180	148	--	--
12S.04W.29.421	80-08-11	110	9.5	220	5.4	11	100	66	42	490
12S.05W.06.313	80-07-25	58	6.5	79	2.6	3.9	190	160	64	85
13S.04W.13.143	80-07-16	69	7.9	64	1.9	8.2	190	156	100	72
13S.07W.34.230 SALADO WE	80-08-22	49	13	16	.5	2.6	220	170	12	8.2
15S.07W.01.2231	80-08-22	39	6.5	12	.5	.6	160	130	15	5.1
19S.05W.05.141	80-07-24	36	7.5	65	2.6	6.7	180	150	63	29
19S.05W.28.211	80-07-24	31	6.4	53	2.3	7.8	210	180	30	12
19S.06W.03.3434 N CEMETA	80-07-31	23	4.4	59	3.0	2.8	190	160	30	10
19S.07W.28.3431 COTTON W	80-08-12	78	18	48	1.3	3.5	310	250	100	21

LOCAL IDENT- I- PIER	DATE OF SAMPLE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, 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)
10S.05W.21.223	80-08-07	.9	56	262	1.3	1	30	60	<1	20
10S.06W.34.3123	80-07-16	1.7	39	638	3.6	2	60	100	2	0
11S.03W.18.123 NARROWS W	80-08-07	.6	46	343	1.4	--	--	110	--	--
11S.04W.32.4131	80-07-18	1.9	12	1930	.93	--	--	280	--	--
11S.06W.32.422	80-07-25	--	--	--	--	2	100	--	1	0
12S.04W.29.421	80-08-11	1.0	37	963	.69	--	--	120	--	--
12S.05W.06.313	80-07-25	1.7	31	438	2.9	--	--	50	--	--
13S.04W.13.143	80-07-16	.5	31	454	1.8	--	--	110	--	--
13S.07W.34.230 SALADO WE	80-08-22	.4	44	265	4.0	--	--	7	--	--
15S.07W.01.2231	80-08-22	.4	39	199	.71	2	10	10	<1	0
19S.05W.05.141	80-07-24	1.0	68	381	3.2	--	--	90	--	--
19S.05W.28.211	80-07-24	1.0	80	344	3.2	10	100	120	<1	0
19S.06W.03.3434 N CEMETA	80-07-31	2.0	22	256	1.4	--	--	80	--	--
19S.07W.28.3431 COTTON W	80-08-12	.7	64	484	.00	--	--	50	--	--

LOCAL IDENT- I- PIER	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)	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)
10S.05W.21.223	80-08-07	6	20	0	2	.1	1	0
10S.06W.34.3123	80-07-16	3	40	3	4	.0	1	0
11S.03W.18.123 NARROWS W	80-08-07	--	70	--	5	--	--	--
11S.04W.32.4131	80-07-18	--	60	--	10	--	--	--
11S.06W.32.422	80-07-25	2	40	0	10	.0	1	0
12S.04W.29.421	80-08-11	--	40	--	6	--	--	--
12S.05W.06.313	80-07-25	--	40	--	30	--	--	--
13S.04W.13.143	80-07-16	--	<10	--	<1	--	--	--
13S.07W.34.230 SALADO WE	80-08-22	--	10	--	2	--	--	--
15S.07W.01.2231	80-08-22	13	20	0	3	.0	0	0
19S.05W.05.141	80-07-24	--	160	--	10	--	--	--
19S.05W.28.211	80-07-24	0	<10	1	<1	.0	1	0
19S.06W.03.3434 N CEMETA	80-07-31	--	<10	--	<1	--	--	--
19S.07W.28.3431 COTTON W	80-08-12	--	30	--	4	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SOCORRO COUNTY

LOCAL IDENT- IFIER	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.04W.24.442	341733107121101	053	GW	80-07-01	1402	000EXRV	--	--	--
01S.02E.22.444 STAPLETON	341210106424801	053	GW	80-04-23	1433	318ABO U	--	--	--
01S.03W.07.131	341424107115901	053	GW	80-07-01	1500	000EXRV	239.00	--	--
01S.03W.17.1241	341341107103501	053	GW	80-07-15	1600	000EXRV	182.00	--	--
01S.03W.30.213	341153107112301	053	GW	80-07-15	1700	000EXRV	--	--	--
02S.01E.23.331	340706106490301	053	SP	80-09-17	1045	120DTILC	--	--	--
02S.01E.26.123	340646106485101	053	SP	80-06-23	1133	112SNTF	--	--	--
02S.01E.27.243 OJO DE AM	340629106491701	053	SP	80-06-09	1436	325MDER	--	--	--
02S.01W.10.221 LEWARK WE	340927106553501	053	GW	80-07-03	1042	110AVMB	--	--	--
02S.02E.03.111 BACA WELL	341024106440601	053	GW	80-03-13	1054	318ABO U	3.50	--	--
02S.02E.30.234 OJO DEL R	340630106460701	053	SP	80-06-09	1534	325MDER	--	--	--
02S.03E.36.331 NEW WELL	340515106352801	053	GW	80-09-04	1616	313SADR	--	--	--
02S.04W.26.342 PRICKETT	340611107135801	053	GW	80-06-05	1100	110AVMB	147.00	--	--
02S.04W.26.344 BLOMQUIST	340603107140101	053	GW	80-06-03	0950	110AVMB	156.00	--	--
03N.01W.21.331	342802106572401	053	GW	80-05-29	1700	112SNTF	352.00	--	--
03N.02E.27.123	342740106432301	053	GW	80-05-30	1230	112SNTF	120.60	--	--
03N.02E.31.431	342607106461901	053	GW	80-06-11	1130	112SNTF	100.00	--	--
03N.02E.33.222	342650106430301	053	GW	80-05-30	1100	112SNTF	178.00	--	--
03N.03E.32.31	342624106384201	053	GW	80-06-12	1430	112SNTF	379.30	--	--
03N.04E.28.244	342723106312001	053	GW	80-05-30	1400	--	171.00	--	--
03S.01E.23.11 PUEBLITO W	340224106485201	053	GW	80-04-21	1343	112SNTF	--	--	--
03S.01W.12.332 BLM-SOCOR	340334106540201	053	GW	80-07-07	0924	--	--	--	--
03S.01W.22.131 SEDILLO S	340223106562301	053	SP	80-09-04	0853	--	--	--	--
03S.01W.33.143 SEDILLO A	340025106570901	053	GW	80-08-21	0835	122PPTS	--	--	--
03S.02E.19.314 OJO DE LA	340152106463801	053	SP	80-06-19	1410	112SNTF	--	--	--
03S.02W.20.111 STROZZI W	340229107044501	053	GW	80-08-21	1505	110AVMB	440.00	--	--
03S.02W.36.212 SEDILLO A	340047107001301	053	GW	80-07-18	0910	--	--	--	--
03S.03E.05.2132 BUSTOS W	340500106390101	053	GW	80-06-03	1242	231CHNL	--	--	--
03S.04W.24.242 HOP CANYO	340210107120301	053	SP	80-08-21	1140	--	--	--	--
03S.06W.11.241 DIVIDE WE	340351107255401	053	GW	80-05-28	1128	120DTILC	203.00	--	--
03S.07W.08.132 CCC WELL	340347107351401	053	GW	80-05-28	1345	120DTILC	--	--	--
04N.01W.15.211	343447106554201	053	GW	80-06-04	1400	112SNTF	224.79	--	--
04N.01W.28.323	343230106570301	053	GW	80-06-03	1600	112SNTF	212.00	--	--
04N.02W.02.433 COMANCHE	343539107005501	053	GW	80-06-04	1000	112SNTF	--	--	--
04S.01E.19.242	335703106521501	053	GW	80-07-03	1000	112SNTF	33.50	--	--
04S.01E.21.241 VIGIL WEL	335704106501601	053	GW	80-09-18	0910	110AVMB	--	--	--
04S.03E.15.123 E. JONES	335759106371401	053	GW	80-09-25	0940	110AVMB	--	--	--
04S.06W.16.213 UPPER CAS	335750107275501	053	GW	80-06-23	1200	--	312.58	--	--
05S.01E.17.344 BOSQUE DE	335212106514201	053	GW	80-07-02	1200	110AVMB	6.00	125	52
05S.01E.30.133 BOSQUE DE	335055106530401	053	GW	80-07-02	1422	110AVMB	30.00	--	--

LOCAL IDENT- IFIER	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 (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS (MG/L AS CACO3) (00900)
01N.04W.24.442	80-07-01	>190	--	--	E1.0	410	8.0	22.5	--	170
01S.02E.22.444 STAPLETON	80-04-23	--	--	--	--	3400	7.6	19.0	--	2000
01S.03W.07.131	80-07-01	--	--	--	--	500	7.7	24.5	--	180
01S.03W.17.1241	80-07-15	--	--	--	E.50	720	7.8	22.5	--	290
01S.03W.30.213	80-07-15	--	--	--	E3.0	503	7.7	25.0	--	160
02S.01E.23.331	80-09-17	--	--	--	--	6500	8.7	16.5	--	3200
02S.01E.26.123	80-06-23	--	--	--	--	1575	8.0	24.0	--	820
02S.01E.27.243 OJO DE AM	80-06-09	--	--	--	--	1500	8.9	25.0	--	470
02S.01W.10.221 LEWARK WE	80-07-03	210	--	--	--	860	8.0	21.5	--	370
02S.02E.03.111 BACA WELL	80-03-13	10	--	--	--	990	7.6	16.0	--	410

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SOCORRO COUNTY - Continued

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 (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS (MG/L AS CaCO3) (00900)
02S.02E.30.234 OJO DEL R	80-06-09	--	--	--	--	561	8.5	24.0	--	280
02S.03E.36.331 NEW WELL	80-09-04	--	--	--	--	2660	7.8	16.5	--	1800
02S.04W.26.342 PRICKETT	80-06-05	240	--	--	--	580	7.8	18.0	--	200
02S.04W.26.344 BLOMQUIST	80-06-03	180	--	--	--	600	7.6	18.0	--	230
03N.01W.21.331	80-05-29	405	--	--	--	1550	7.9	19.0	--	400
03N.02E.27.123	80-05-30	380	--	--	--	975	7.9	17.0	--	190
03N.02E.31.431	80-06-11	135	--	--	--	1150	8.3	22.5	--	320
03N.02E.33.222	80-05-30	320	--	--	--	3400	7.6	17.5	--	370
03N.03E.32.31	80-06-12	--	--	--	--	1080	7.8	20.7	--	440
03N.04E.28.244	80-05-30	192	--	--	--	1550	7.3	15.5	--	840
03S.01E.23.11 PUEBLITO W	80-04-21	395	--	--	--	1440	8.0	23.0	--	120
03S.01W.12.332 BLM-SOCOR	80-07-07	--	--	--	--	695	8.0	22.0	--	220
03S.01W.22.131 SEDILLO S	80-09-04	--	--	--	--	331	8.5	30.0	--	62
03S.01W.33.143 SEDILLO A	80-08-21	24	--	24	--	1020	7.7	17.0	--	370
03S.02E.19.314 OJO DE LA	80-06-19	--	--	--	--	3070	8.3	24.0	--	2000
03S.02W.20.111 STROZZI W	80-08-21	540	--	540	--	328	7.5	22.0	--	140
03S.02W.36.212 SEDILLO A	80-07-18	155	--	--	--	590	8.8	23.0	--	110
03S.03E.05.2132 BUSTOS W	80-06-03	315	--	--	--	2420	7.7	19.0	--	1500
03S.04W.24.242 HOP CANYO	80-08-21	--	--	--	--	240	7.2	16.0	--	110
03S.06W.11.241 DIVIDE WE	80-05-28	291	--	--	--	725	7.7	21.0	--	290
03S.07W.08.132 CCC WELL	80-05-28	--	--	--	--	272	8.1	20.0	--	50
04N.01W.15.211	80-06-04	268	--	--	--	3200	7.3	21.0	--	1000
04N.01W.28.323	80-06-03	260	--	--	--	3025	7.5	20.5	--	320
04N.02W.02.433 COMANCHE	80-06-04	439	--	--	--	5300	7.7	18.5	--	170
04S.01E.19.242	80-07-03	47	E180	--	--	700	8.2	22.0	--	140
04S.01E.21.241 VIGIL WEL	80-09-18	125	--	125	--	1550	8.6	21.0	--	140
04S.03E.15.123 E. JONES	80-09-25	206	--	565	--	3260	8.7	--	--	1800
04S.06W.16.213 UPPER CAS	80-06-23	--	--	--	--	400	8.1	20.0	--	130
05S.01E.17.344 BOSQUE DE	80-07-02	125	--	--	--	1800	7.7	17.0	--	580
05S.01E.30.133 BOSQUE DE	80-07-02	65	--	--	2.5	1000	8.0	22.5	--	180

LOCAL IDENT- I- FIER	DATE OF SAMPLE	HARD- NESS, NONCAR- BONATE (MG/L AS 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)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LITY (MG/L AS CaCO3) (00410)
01N.04W.24.442	80-07-01	6	33	22	29	1.0	1.1	200	--	164
01S.02E.22.444 STAPLETON	80-04-23	1800	450	210	130	1.3	6.4	--	--	150
01S.03W.07.131	80-07-01	0	44	18	33	1.1	1.6	240	--	197
01S.03W.17.1241	80-07-15	160	75	25	64	1.6	3.5	160	--	131
01S.03W.30.213	80-07-15	12	43	13	40	1.4	2.3	180	--	148
02S.01E.23.331	80-09-17	2700	390	530	760	5.9	.8	--	--	420
02S.01E.26.123	80-06-23	650	170	96	130	2.0	8.0	--	--	170
02S.01E.27.243 OJO DE AM	80-06-09	340	60	78	150	3.0	5.6	--	--	130
02S.01W.10.221 LEWARK WE	80-07-03	110	110	24	37	.8	4.9	--	--	260
02S.02E.03.111 BACA WELL	80-03-13	60	70	57	71	1.5	4.4	--	--	350
02S.02E.30.234 OJO DEL R	80-06-09	0	43	41	22	.6	4.1	--	--	290
02S.03E.36.331 NEW WELL	80-09-04	1700	520	120	45	.5	3.5	--	--	89
02S.04W.26.342 PRICKETT	80-06-05	65	54	17	34	1.0	1.8	--	--	140
02S.04W.26.344 BLOMQUIST	80-06-03	84	64	18	40	1.1	5.6	--	--	150
03N.01W.21.331	80-05-29	210	91	41	220	4.8	11	230	--	189
03N.02E.27.123	80-05-30	75	48	17	140	4.4	22	140	--	115
03N.02E.31.431	80-06-11	220	84	27	120	2.9	27	120	--	98
03N.02E.33.222	80-05-30	220	98	31	770	17	8.6	180	--	148
03N.03E.32.31	80-06-12	320	110	40	65	1.4	3.1	150	--	123
03N.04E.28.244	80-05-30	690	200	82	96	1.4	2.2	--	--	150

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)
03S.01E.23.11 PUEBLITO W	80-04-21	12	36	7.9	280	11	23	--	--	110
03S.01W.12.332 BLM-SOCOR	80-07-07	47	74	7.7	57	1.7	3.8	--	--	170
03S.01W.22.131 SEDILLO S	80-09-04	0	18	4.2	53	2.9	3.0	--	--	120
03S.01W.33.143 SEDILLO A	80-08-21	110	120	18	93	2.1	3.0	--	--	260
03S.02E.19.314 OJO DE LA	80-06-19	1800	530	160	63	.6	6.0	--	--	170
03S.02W.20.111 STROZZI W	80-08-21	0	46	6.0	14	.5	2.5	--	--	150
03S.02W.36.212 SEDILLO A	80-07-18	0	33	7.6	85	3.5	7.3	--	--	190
03S.03E.05.2132 BUSTOS W	80-06-03	1300	410	110	90	1.0	3.4	--	--	150
03S.04W.24.242 HOP CANYO	80-08-21	6	37	3.4	5.8	.2	.9	--	--	100
03S.06W.11.241 DIVIDE WE	80-05-28	88	79	22	38	1.0	2.3	--	--	200
03S.07W.08.132 CCC WELL	80-05-28	0	15	3.1	41	2.5	1.4	--	--	97
04N.01W.15.211	80-06-04	850	270	87	370	5.0	12	180	--	148
04N.01W.28.323	80-06-03	120	75	33	510	12	13	250	--	205
04N.02W.02.433 COMANCHE	80-06-04	0	39	17	1100	37	32	950	--	779
04S.01E.19.242	80-07-03	0	46	6.7	80	2.9	4.8	210	--	172
04S.01E.21.241 VIGIL WEL	80-09-18	0	33	14	330	12	7.7	--	--	170
04S.03E.15.123 E. JONES	80-09-25	1800	540	110	210	2.2	5.8	--	--	25
04S.06W.16.213 UPPER CAS	80-06-23	0	37	9.9	46	1.7	1.9	--	--	190
05S.01E.17.344 BOSQUE DE	80-07-02	330	180	32	160	2.9	8.4	310	--	254
05S.01E.30.133 BOSQUE DE	80-07-02	65	52	12	120	3.9	5.0	140	--	115
LOCAL IDENT- I- FIER	DATE OF SAMPLE	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 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)
01N.04W.24.442	80-07-01	30	18	.5	37	--	290	--	4.7	--
01S.02E.22.444 STAPLETON	80-04-23	1800	84	.6	17	3300	2850	--	13	0
01S.03W.07.131	80-07-01	25	15	.4	39	--	312	--	4.1	--
01S.03W.17.1241	80-07-15	180	84	.4	29	--	551	--	2.4	--
01S.03W.30.213	80-07-15	80	16	.6	31	--	322	--	1.6	--
02S.01E.23.331	80-09-17	3900	260	2.3	19	7180	6120	--	.00	1
02S.01E.26.123	80-06-23	800	38	1.1	17	--	1370	--	1.0	3
02S.01E.27.243 OJO DE AM	80-06-09	610	39	.9	13	1150	1040	--	.01	1
02S.01W.10.221 LEWARK WE	80-07-03	86	86	.4	30	554	536	--	.08	28
02S.02E.03.111 BACA WELL	80-03-13	160	23	.5	22	629	629	--	2.3	3
02S.02E.30.234 OJO DEL R	80-06-09	33	4.4	.5	13	345	336	--	.13	4
02S.03E.36.331 NEW WELL	80-09-04	1700	60	1.3	10	2740	2520	.42	.41	1
02S.04W.26.342 PRICKETT	80-06-05	100	18	.6	24	357	342	--	1.5	1
02S.04W.26.344 BLOMQUIST	80-06-03	130	14	.6	23	386	402	--	3.6	0
03N.01W.21.331	80-05-29	280	320	1.0	23	--	1100	--	.00	--
03N.02E.27.123	80-05-30	170	150	1.7	44	--	662	--	.01	17
03N.02E.31.431	80-06-11	240	190	1.4	56	--	806	--	.00	--
03N.02E.33.222	80-05-30	330	1100	2.9	30	--	2460	--	.13	4
03N.03E.32.31	80-06-12	420	14	.9	27	--	758	--	.85	--
03N.04E.28.244	80-05-30	830	45	.8	16	--	1370	--	1.7	1
03S.01E.23.11 PUEBLITO W	80-04-21	520	50	3.0	39	1030	1030	--	1.5	31
03S.01W.12.332 BLM-SOCOR	80-07-07	110	44	.6	28	413	428	--	.02	28
03S.01W.22.131 SEDILLO S	80-09-04	31	13	.7	26	255	222	--	.26	39
03S.01W.33.143 SEDILLO A	80-08-21	260	28	.7	45	733	734	--	2.2	4
03S.02E.19.314 OJO DE LA	80-06-19	1800	77	.7	19	3100	2760	--	.03	1
03S.02W.20.111 STROZZI W	80-08-21	6.8	15	.3	25	205	207	--	.00	5
03S.02W.36.212 SEDILLO A	80-07-18	90	23	.7	22	383	385	--	.50	4
03S.03E.05.2132 BUSTOS W	80-06-03	1500	21	1.1	12	2410	2240	--	.03	0
03S.04W.24.242 HOP CANYO	80-08-21	15	1.8	.1	18	146	143	--	.13	0
03S.06W.11.241 DIVIDE WE	80-05-28	130	28	1.1	32	477	468	--	3.3	3
03S.07W.08.132 CCC WELL	80-05-28	22	11	.6	35	185	196	--	1.9	4
04N.01W.15.211	80-06-04	1100	440	.5	15	--	2400	--	2.6	--
04N.01W.28.323	80-06-03	500	530	1.6	15	--	1810	--	2.0	--
04N.02W.02.433 COMANCHE	80-06-04	920	680	4.1	53	--	3320	--	1.1	1
04S.01E.19.242	80-07-03	76	46	1.0	35	--	410	--	2.5	--
04S.01E.21.241 VIGIL WEL	80-09-18	240	340	.8	37	961	1110	--	.00	7
04S.03E.15.123 E. JONES	80-09-25	2200	7.3	.2	18	3450	3130	--	5.4	0
04S.06W.16.213 UPPER CAS	80-06-23	23	19	1.3	35	281	297	--	2.2	4
05S.01E.17.344 BOSQUE DE	80-07-02	330	260	.2	32	--	1160	--	.02	--
05S.01E.30.133 BOSQUE DE	80-07-02	120	150	.5	46	--	576	--	.21	--

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SOCORRO COUNTY - Continued

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)
01N.04W.24.442	80-07-01	--	100	--	--	--	<10	--
01S.02E.22.444 STAPLETON	80-04-23	800	320	2	10	8	360	3
01S.03W.07.131	80-07-01	--	100	--	--	--	20	--
01S.03W.17.1241	80-07-15	--	150	--	--	--	350	--
01S.03W.30.213	80-07-15	--	100	--	--	--	540	--
02S.01E.23.331	80-09-17	200	900	1	40	7	40	0
02S.01E.26.123	80-06-23	10	--	<1	10	9	50	3
02S.01E.27.243 OJO DE AM	80-06-09	40	310	<1	0	3	<10	3
02S.01W.10.221 LEWARK WE	80-07-03	100	70	<1	10	0	20	0
02S.02E.03.111 BACA WELL	80-03-13	60	110	<1	0	21	20	0
02S.02E.30.234 OJO DEL R	80-06-09	200	90	<1	0	2	10	0
02S.03E.36.331 NEW WELL	80-09-04	200	240	0	0	9	60	1
02S.04W.26.342 PRICKETT	80-06-05	50	80	<1	0	0	10	3
02S.04W.26.344 BLOMQUIST	80-06-03	30	110	1	0	3	60	3
03N.01W.21.331	80-05-29	--	410	--	--	--	10	--
03N.02E.27.123	80-05-30	30	220	<1	10	2	10	0
03N.02E.31.431	80-06-11	--	960	--	--	--	80	--
03N.02E.33.222	80-05-30	30	860	<1	0	2	40	0
03N.03E.32.31	80-06-12	--	130	--	--	--	10	--
03N.04E.28.244	80-05-30	10	60	<1	0	1	110	0
03S.01E.23.11 PUEBLITO W	80-04-21	4	360	<1	0	5	70	3
03S.01W.12.332 BLM-SOCOR	80-07-07	100	120	<1	0	34	<10	0
03S.01W.22.131 SEDILLO S	80-09-04	100	120	<1	0	1	<10	2
03S.01W.33.143 SEDILLO A	80-08-21	50	230	<1	10	8	20	0
03S.02E.19.314 OJO DE LA	80-06-19	100	270	0	10	0	40	0
03S.02W.20.111 STROZZI W	80-08-21	400	30	<1	0	17	20	0
03S.02W.36.212 SEDILLO A	80-07-18	60	140	<1	0	11	20	2
03S.03E.05.2132 BUSTOS W	80-06-03	200	370	2	0	3	840	0
03S.04W.24.242 HOP CANYO	80-08-21	100	30	<1	10	5	10	0
03S.06W.11.241 DIVIDE WE	80-05-28	50	90	2	0	7	270	0
03S.07W.08.132 CCC WELL	80-05-28	10	100	<1	30	11	140	0
04N.01W.15.211	80-06-04	--	--	--	--	--	150	--
04N.01W.28.323	80-06-03	--	900	--	--	--	20	--
04N.02W.02.433 COMANCHE	80-06-04	0	1800	0	10	1	30	0
04S.01E.19.242	80-07-03	--	160	--	--	--	<10	--
04S.01E.21.241 VIGIL WEL	80-09-18	60	180	1	0	2	<10	2
04S.03E.15.123 E. JONES	80-09-25	200	350	0	20	0	60	4
04S.06W.16.213 UPPER CAS	80-06-23	9	60	<1	0	5	<10	2
05S.01E.17.344 BOSQUE DE	80-07-02	--	100	--	--	--	350	--
05S.01E.30.133 BOSQUE DE	80-07-02	--	170	--	--	--	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)
01N.04W.24.442	80-07-01	8	--	--	--
01S.02E.22.444 STAPLETON	80-04-23	30	.1	9	0
01S.03W.07.131	80-07-01	4	--	--	--
01S.03W.17.1241	80-07-15	8	--	--	--
01S.03W.30.213	80-07-15	20	--	--	--
02S.01E.23.331	80-09-17	20	.0	4	0
02S.01E.26.123	80-06-23	20	.1	3	0
02S.01E.27.243 OJO DE AM	80-06-09	4	.1	2	0
02S.01W.10.221 LEWARK WE	80-07-03	370	.0	5	0
02S.02E.03.111 BACA WELL	80-03-13	2	.2	3	0
02S.02E.30.234 OJO DEL R	80-06-09	30	.1	0	0
02S.03E.36.331 NEW WELL	80-09-04	50	.0	22	0
02S.04W.26.342 PRICKETT	80-06-05	1	.0	2	0
02S.04W.26.344 BLOMQUIST	80-06-03	<1	.2	2	0
03N.01W.21.331	80-05-29	50	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
03N.02E.27.123	80-05-30	20	.0	0	0
03N.02E.31.431	80-06-11	4	---	---	---
03N.02E.33.222	80-05-30	10	.1	1	0
03N.03E.32.31	80-06-12	<1	---	---	---
03N.04E.28.244	80-05-30	10	.0	2	0
03S.01E.23.11 PUEBLITO W	80-04-21	7	.1	1	0
03S.01W.12.332 BLM-SOCOR	80-07-07	560	.0	0	0
03S.01W.22.131 SEDILLO S	80-09-04	<1	.0	1	0
03S.01W.33.143 SEDILLO A	80-08-21	1	.0	3	0
03S.02E.19.314 OJO DE LA	80-06-19	760	.1	0	0
03S.02W.20.111 STROZZI W	80-08-21	50	.0	0	0
03S.02W.36.212 SEDILLO A	80-07-18	3	.0	3	0
03S.03E.05.2132 BUSTOS W	80-06-03	50	.0	7	0
03S.04W.24.242 HOP CANYO	80-08-21	<1	.0	0	0
03S.06W.11.241 DIVIDE WE	80-05-28	3	.2	5	0
03S.07W.08.132 CCC WELL	80-05-28	4	.1	3	0
04N.01W.15.211	80-06-04	80	---	---	---
04N.01W.28.323	80-06-03	0	---	---	---
04N.02W.02.433 COMANCHE	80-06-04	30	.2	8	0
04S.01E.19.242	80-07-03	40	---	---	---
04S.01E.21.241 VIGIL WEL	80-09-18	20	.0	0	0
04S.03E.15.123 E. JONES	80-09-25	40	.0	3	0
04S.06W.16.213 UPPER CAS	80-06-23	3	.0	2	0
05S.01E.17.344 BOSQUE DE	80-07-02	1300	---	---	---
05S.01E.30.133 BOSQUE DE	80-07-02	4	---	---	---

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)
05S.01E.30.241 BOSQUE DE	335058106522301	053	GW	80-07-02	1100	110AVMB	7.70	---	---	---
05S.01W.11.132 PADILLA W	335332106550801	053	GW	80-09-02	0914	325MDR	---	---	---	---
05S.03E.09.244 JORNADA C	335349106382501	053	GW	80-06-03	1012	110AVMB	---	---	---	---
06S.01E.05.233 BOSQUE DE	334902106513201	053	GW	80-07-02	1100	110AVMB	4.40	---	---	---
06S.01E.07.213 BOSQUE DE	334821106523401	053	GW	80-07-02	1000	110AVMB	5.60	100	---	70
06S.01W.12.231 BOSQUE DE	334815106533801	053	GW	80-07-02	0900	112SNTF	32.00	---	---	---
06S.03E.05.232 SRC-1	334908106390801	053	GW	80-08-01	1330	---	207.70	---	---	---
06S.03E.05.233 SRC PROD	334908106391201	053	GW	80-08-01	1500	---	---	---	---	---
06S.03E.05.234 SRC-2	334907106391201	053	GW	80-08-01	1300	---	214.10	---	---	---
06S.03W.19.131 ANTELOPE	334646107112801	053	GW	80-05-27	1030	---	---	---	---	---
06S.05W.24.34233	334602107184601	053	GW	80-08-06	1300	000EXRV	326.00	---	---	---
07S.01W.18.140	334209106590101	053	GW	80-07-18	1200	112SNTF	28.00	---	---	---
07S.02W.04.334 HIGHWAY W	334243107020001	053	GW	80-09-04	1432	110AVMB	---	---	---	---
07S.03W.08.121	334331107101101	053	GW	80-07-17	1500	112SNTF	243.00	---	---	---
07S.04W.27.432	334010107140101	053	GW	80-08-07	1100	000EXRV	172.00	---	---	---
08S.03W.02.3313	333827107072101	053	GW	80-07-17	1200	112SNTF	226.00	277	---	217
08S.04W.09.321	333745107152301	053	GW	80-08-07	1000	000EXRV	85.00	---	---	---
08S.04W.31.441 RABBIT EY	333405107165901	053	GW	80-07-23	1130	000EXRV	119.00	---	---	---
08S.04W.33.3211	333421107153001	053	GW	80-07-23	1000	000EXRV	356.00	---	---	---
08S.04W.35.1134	333437107133601	053	GW	80-07-23	1700	112SNTF	410.00	---	---	---
08S.07W.31.144 SPRING	333421107360301	053	SP	80-07-02	1030	112SNTF	---	---	---	---
08S.07W.31.233 SPRING	333422107360501	053	SP	80-07-02	1045	112SNTF	---	---	---	---
08S.07W.31.244 OJO CALIE	333425107353501	053	SP	80-07-02	1140	112SNTF	---	---	---	---
09S.06W.36.141 QUESTA SP	332915107244901	053	GW	80-08-09	1100	000EXRV	11.00	---	---	---
09S.03W.20.232	333105107094801	053	GW	80-07-23	1400	112SNTF	260.00	---	---	---
09S.04W.03.421 NOGAL CAN	333325107134201	053	SP	80-03-28	1319	---	---	---	---	---

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SOCORRO COUNTY - Continued

LOCAL IDENT- IFIER	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 (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS (MG/L AS CACO3) (00900)
05S.01E.30.241 BOSQUE DE	80-07-02	142	---	---	1730	1400	7.7	17.0	---	420
05S.01W.11.132 PADILLA W	80-09-02	550	---	550	---	382	8.4	19.0	---	52
05S.03E.09.244 JORNADA C	80-06-03	352	---	---	---	9750	9.8	23.0	---	6000
06S.01E.05.233 BOSQUE DE	80-07-02	170	---	---	E2000	1200	7.8	16.0	---	250
06S.01E.07.213 BOSQUE DE	80-07-02	100	20	---	---	4600	7.4	33.0	3.2	470
06S.01W.12.231 BOSQUE DE	80-07-02	155	---	---	E500	625	7.9	24.0	---	72
06S.03E.05.232 SRC-1	80-08-01	---	---	---	---	3460	7.8	---	---	---
06S.03E.05.233 SRC PROD	80-08-01	---	---	---	---	339	4.2	---	---	---
06S.03E.05.234 SRC-2	80-08-01	---	---	---	---	3430	7.7	---	---	---
06S.03W.19.131 ANTELOPE	80-05-27	>500	---	---	---	---	---	---	---	54
06S.05W.24.34233	80-08-06	400	---	---	---	315	8.6	21.0	---	23
07S.01W.18.140	80-07-18	140	---	---	---	825	7.8	22.0	---	94
07S.02W.04.334 HIGHWAY W	80-09-04	352	---	352	---	210	8.3	25.0	---	56
07S.03W.08.121	80-07-17	---	120	---	---	320	8.4	26.0	---	57
07S.04W.27.432	80-08-07	359	120	---	10	520	7.9	23.0	---	160
08S.03W.02.3313	80-07-17	---	---	305	---	345	9.4	21.0	---	80
08S.04W.09.321	80-08-07	---	---	---	6.0	400	7.1	21.0	---	160
08S.04W.31.441 RABBIT EY	80-07-23	200	30	200	1.0	134	7.4	24.5	---	47
08S.04W.33.3211	80-07-23	403	---	403	18	305	8.0	24.5	---	77
08S.04W.35.1134	80-07-23	---	---	---	---	395	7.8	24.0	---	170
08S.07W.31.144 SPRING	80-07-02	---	---	---	---	755	8.3	27.0	---	95
08S.07W.31.233 SPRING	80-07-02	---	---	---	---	825	8.2	27.0	---	110
08S.07W.31.244 OJO CALIE	80-07-02	---	---	---	---	920	7.9	27.0	---	110
09S.06W.36.141 QUESTA SP	80-08-09	---	---	---	---	590	7.4	18.0	---	240
09S.03W.20.232	80-07-23	---	---	---	18	264	7.8	24.0	---	110
09S.04W.03.421 NOGAL CAN	80-03-28	---	---	---	---	334	7.9	11.5	---	150

LOCAL IDENT- IFIER	DATE OF SAMPLE	HARD- NESS, NONCAR- BONATE (MG/L AS 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)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LITY (MG/L AS CACO3) (00410)
05S.01E.30.241 BOSQUE DE	80-07-02	92	120	28	140	3.0	8.3	400	---	328
05S.01W.11.132 PADILLA W	80-09-02	0	19	1.2	66	4.0	3.1	---	---	120
05S.03E.09.244 JORNADA C	80-06-03	5900	570	1100	320	1.8	27	---	---	98
06S.01E.05.233 BOSQUE DE	80-07-02	61	73	17	140	3.8	8.4	230	---	189
06S.01E.07.213 BOSQUE DE	80-07-02	130	120	41	810	16	31	410	---	336
06S.01W.12.231 BOSQUE DE	80-07-02	0	24	3.0	96	4.9	4.4	170	---	139
06S.03E.05.232 SRC-1	80-08-01	---	---	---	---	---	---	---	---	---
06S.03E.05.233 SRC PROD	80-08-01	---	---	---	---	---	---	---	---	---
06S.03E.05.234 SRC-2	80-08-01	---	---	---	---	---	---	---	---	---
06S.03W.19.131 ANTELOPE	80-05-27	0	19	1.5	45	2.7	2.2	---	---	110
06S.05W.24.34233	80-08-06	0	9.2	.1	67	6.0	.5	100	---	82
07S.01W.18.140	80-07-18	0	31	4.1	130	5.8	3.0	220	---	180
07S.02W.04.334 HIGHWAY W	80-09-04	0	20	1.4	26	1.5	2.0	---	---	81
07S.03W.08.121	80-07-17	0	20	1.8	53	3.0	2.3	130	---	107
07S.04W.27.432	80-08-07	27	51	7.3	44	1.5	1.7	160	---	130
08S.03W.02.3313	80-07-17	0	27	3.0	48	2.3	3.1	120	8	112
08S.04W.09.321	80-08-07	10	48	9.7	25	.9	2.7	180	---	150
08S.04W.31.441 RABBIT EY	80-07-23	0	14	2.8	9.1	.6	1.7	67	---	57
08S.04W.33.3211	80-07-23	0	20	6.6	40	2.0	2.7	150	---	130
08S.04W.35.1134	80-07-23	36	40	16	27	.9	2.7	160	---	130
08S.07W.31.144 SPRING	80-07-02	0	36	1.2	120	5.4	5.2	---	---	120
08S.07W.31.233 SPRING	80-07-02	1	42	1.5	140	5.8	5.7	---	---	110
08S.07W.31.244 OJO CALIE	80-07-02	4	43	1.5	150	6.1	5.6	---	---	110
09S.06W.36.141 QUESTA SP	80-08-09	16	73	13	33	.9	2.5	270	---	220
09S.03W.20.232	80-07-23	0	37	3.4	11	.5	1.5	160	---	110
09S.04W.03.421 NOGAL CAN	80-03-28	12	48	7.7	16	.6	2.2	---	---	140

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SOCORRO COUNTY - Continued

LOCAL IDENT- IFIER	DATE OF SAMPLE	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 SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, 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)
05S.01E.30.241 BOSQUE DE	80-07-02	270	100	.5	40	--	906	--	.10	--
05S.01W.11.132 PADILLA W	80-09-02	54	13	.6	45	304	278	--	.59	3
05S.03E.09.244 JORNADA C	80-06-03	4000	360	.8	1.2	11800	6440	--	.13	1
06S.01E.05.233 BOSQUE DE	80-07-02	230	93	.4	33	--	709	--	.05	--
06S.01E.07.213 BOSQUE DE	80-07-02	560	980	1.0	24	--	2780	--	1.1	55
06S.01W.12.231 BOSQUE DE	80-07-02	59	60	2.3	42	--	379	--	1.0	19
06S.03E.05.232 SRC-1	80-08-01	--	--	--	--	--	--	--	--	--
06S.03E.05.233 SRC PROD	80-08-01	--	--	--	--	--	--	--	--	--
06S.03E.05.234 SRC-2	80-08-01	--	--	--	--	--	--	--	--	--
06S.03W.19.131 ANTELOPE	80-05-27	24	6.6	1.1	35	202	205	--	.79	7
06S.05W.24.34233	80-08-06	12	39	6.6	36	--	222	--	.43	3
07S.01W.18.140	80-07-18	110	70	.9	33	--	494	--	.75	--
07S.02W.04.334 HIGHWAY W	80-09-04	12	5.0	1.1	29	170	147	--	.43	3
07S.03W.08.121	80-07-17	32	18	1.7	43	--	239	--	.68	--
07S.04W.27.432	80-08-07	68	39	.4	46	--	338	--	.56	--
08S.03W.02.3313	80-07-17	26	34	1.1	39	--	250	--	.43	--
08S.04W.09.321	80-08-07	32	15	.9	44	--	279	--	2.5	--
08S.04W.31.441 RABBIT EY	80-07-23	7.1	4.8	.7	38	--	114	--	.08	1
08S.04W.33.3211	80-07-23	21	6.6	--	46	--	224	--	.62	--
08S.04W.35.1134	80-07-23	77	7.3	1.7	23	--	277	--	.90	--
08S.07W.31.144 SPRING	80-07-02	90	110	--	38	482	474	--	.39	9
08S.07W.31.233 SPRING	80-07-02	94	140	1.5	40	518	533	--	.35	9
08S.07W.31.244 OJO CALIE	80-07-02	95	150	3.9	40	547	557	--	.34	9
09S.06W.36.141 QUESTA SP	80-08-09	67	12	.4	39	--	378	--	1.2	2
09S.03W.20.232	80-07-23	11	5.3	.6	35	--	177	--	1.4	--
09S.04W.03.421 NOGAL CAN	80-03-28	25	4.7	1.0	40	210	229	--	.04	1

LOCAL IDENT- IFIER	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)
05S.01E.30.241 BOSQUE DE	80-07-02	--	210	--	--	--	350	--
05S.01W.11.132 PADILLA W	80-09-02	10	140	<1	0	4	640	2
05S.03E.09.244 JORNADA C	80-06-03	0	1200	1	30	8	110	0
06S.01E.05.233 BOSQUE DE	80-07-02	--	210	--	--	--	530	--
06S.01E.07.213 BOSQUE DE	80-07-02	100	880	1	10	0	1300	2
06S.01W.12.231 BOSQUE DE	80-07-02	10	140	<1	10	3	10	2
06S.03E.05.232 SRC-1	80-08-01	--	--	--	--	--	--	--
06S.03E.05.233 SRC PROD	80-08-01	--	--	--	--	--	--	--
06S.03E.05.234 SRC-2	80-08-01	--	--	--	--	--	--	--
06S.03W.19.131 ANTELOPE	80-05-27	4	70	<1	0	6	590	2
06S.05W.24.34233	80-08-06	7	60	<1	0	2	30	0
07S.01W.18.140	80-07-18	--	230	--	--	--	20	--
07S.02W.04.334 HIGHWAY W	80-09-04	20	10	<1	0	1	20	2
07S.03W.08.121	80-07-17	--	120	--	--	--	<10	--
07S.04W.27.432	80-08-07	--	110	--	--	--	20	--
08S.03W.02.3313	80-07-17	--	30	--	--	--	<10	--
08S.04W.09.321	80-08-07	--	80	--	--	--	20	--
08S.04W.31.441 RABBIT EY	80-07-23	8	20	2	10	2	320	2
08S.04W.33.3211	80-07-23	--	40	--	--	--	10	--
08S.04W.35.1134	80-07-23	--	40	--	--	--	20	--
08S.07W.31.144 SPRING	80-07-02	3	110	<1	10	0	<10	0
08S.07W.31.233 SPRING	80-07-02	3	100	<1	0	0	<10	0
08S.07W.31.244 OJO CALIE	80-07-02	4	90	<1	0	0	<10	0
09S.06W.36.141 QUESTA SP	80-08-09	70	40	<1	0	2	<10	0
09S.03W.20.232	80-07-23	--	2	--	--	--	30	--
09S.04W.03.421 NOGAL CAN	80-03-28	20	10	<1	0	7	<10	3

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SOCORRO COUNTY - Continued

LOCAL IDENT- IFIER	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)
05S.01E.30.241 BOSQUE DE	80-07-02	1500	--	--	--
05S.01W.11.132 PADILLA W	80-09-02	6	.0	2	0
05S.03E.09.244 JORNADA C	80-06-03	60	.1	5	0
06S.01E.05.233 BOSQUE DE	80-07-02	400	--	--	--
06S.01E.07.213 BOSQUE DE	80-07-02	280	.1	0	0
06S.01W.12.231 BOSQUE DE	80-07-02	1	.1	2	0
06S.03E.05.232 SRC-1	80-08-01	--	--	--	--
06S.03E.05.233 SRC PROD	80-08-01	--	--	--	--
06S.03E.05.234 SRC-2	80-08-01	--	--	--	--
06S.03W.19.131 ANTELOPE	80-05-27	2	.2	1	0
06S.05W.24.34233	80-08-06	<1	.3	0	0
07S.01W.18.140	80-07-18	3	--	--	--
07S.02W.04.334 HIGHWAY W	80-09-04	<1	.0	1	0
07S.03W.08.121	80-07-17	1	--	--	--
07S.04W.27.432	80-08-07	5	--	--	--
08S.03W.02.3313	80-07-17	<1	--	--	--
08S.04W.09.321	80-08-07	<1	--	--	--
08S.04W.31.441 RABBIT EY	80-07-23	30	.0	0	0
08S.04W.33.3211	80-07-23	<1	--	--	--
08S.04W.35.1134	80-07-23	3	--	--	--
08S.07W.31.144 SPRING	80-07-02	<1	.1	0	0
08S.07W.31.233 SPRING	80-07-02	<1	.1	0	0
08S.07W.31.244 OJO CALIE	80-07-02	<1	.2	0	0
09S.06W.36.141 QUESTA SP	80-08-09	9	.0	1	0
09S.03W.20.232	80-07-23	3	--	--	--
09S.04W.03.421 NOGAL CAN	80-03-28	<1	.1	0	0

LOCAL IDENT- IFIER	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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
01S.02E.22.444 STAPLETON	341210106424801	053	GW	80-04-23	1433	43	<20	<20	14
02S.01E.23.331	340706106490301	053	SP	80-09-17	1045	170	79	71	60
02S.01E.26.123	340646106485101	053	SP	80-06-23	1133	<22	9.1	8.8	--
02S.01E.27.243 OJO DE AM	340629106491701	053	SP	80-06-09	1436	36	16	16	19
02S.01W.10.221 LEWARK WE	340927106553501	053	GW	80-07-03	1042	--	--	--	141
02S.02E.03.111 BACA WELL	341024106440601	053	GW	80-03-13	1054	13	7.3	7.6	21
02S.02E.30.234 OJO DEL R	340630106460701	053	SP	80-06-09	1534	<6.8	6.0	5.6	4.9
02S.03E.36.331 NEW WELL	340515106352801	053	GW	80-09-04	1616	45	<14	<13	5.9
02S.04W.26.342 PRICKETT	340611107135801	053	GW	80-06-05	1100	6.8	<2.5	<2.4	5.8
02S.04W.26.344 BLOMQUIST	340603107140101	053	GW	80-06-03	0950	9.3	2.5	2.4	6.3
03S.01E.23.11 PUEBLITO W	340224106485201	053	GW	80-04-21	1343	<16	16	17	<.6
03S.01W.12.332 BLM-SOCOR	340334106540201	053	GW	80-07-07	0924	<9.1	<3.4	<3.3	4.4
03S.01W.22.131 SEDILLO S	340223106562301	053	SP	80-09-04	0853	12	3.5	3.3	2.5
03S.01W.33.143 SEDILLO A	340025106570901	053	GW	80-08-21	0835	18	7.4	7.1	11
03S.02E.19.314 OJO DE LA	340152106463801	053	SP	80-06-19	1410	<42	<16	<15	9.9
03S.02W.20.111 STROZZI W	340229107044501	053	GW	80-08-21	1505	<3.4	2.3	2.3	.9
03S.02W.36.212 SEDILLO A	340047107001301	053	GW	80-07-18	0910	22	11	11	21
03S.03E.05.2132 BUSTOS W	340500106390101	053	GW	80-06-03	1242	--	--	--	13
03S.04W.24.242 HOP CANYO	340210107120301	053	SP	80-08-21	1140	<2.2	1.4	1.3	<.6
03S.06W.11.241 DIVIDE WE	340351107255401	053	GW	80-05-28	1128	7.3	<3.4	<3.2	3.4
03S.07W.08.132 CCC WELL	340347107351401	053	GW	80-05-28	1345	15	2.8	2.7	5.1
04S.01E.21.241 VIGIL WEL	335704106501601	053	GW	80-09-18	0910	<14	15	14	1.8
04S.03E.15.123 E. JONES	335759106371401	053	GW	80-09-25	0940	<53	<19	<18	2.1
05S.01W.11.132 PADILLA W	335332106550801	053	GW	80-09-02	0914	13	5.4	5.2	7.5
05S.03E.09.244 JORNADA C	335349106382501	053	GW	80-06-03	1012	<290	<130	<130	6.7
06S.03W.19.131 ANTELOPE	334646107112801	053	GW	80-05-27	1030	8.9	3.9	3.8	3.2
07S.02W.04.334 HIGHWAY W	334243107020001	053	GW	80-09-04	1432	5.1	2.2	2.1	1.6
08S.07W.31.144 SPRING	333421107360301	053	SP	80-07-02	1030	28	<3.8	<3.7	5.9
08S.07W.31.233 SPRING	333422107360501	053	SP	80-07-02	1045	21	<4.2	<4.1	6.8
08S.07W.31.244 OJO CALIE	333425107353501	053	SP	80-07-02	1140	21	<4.8	<4.6	6.2
09S.04W.03.421 NOGAL CAN	333325107134201	053	SP	80-03-28	1319	<2.6	2.3	2.3	.8

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

TAOS 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)
24N.09E.11.124	362000105571501	055	GW	80-07-17	1300	110AVMB	--	650	645	--
25N.11E.28.343	362153105463701	055	GW	80-08-05	1400	--	306.00	--	--	--
26N.10E.14.322	362915105504701	055	GW	80-08-05	1100	--	11.30	--	--	--
26N.11E.21.211	362845105462501	055	GW	80-07-17	0730	110AVMB	--	--	--	--
26N.11E.23.232	362835105440701	055	GW	80-07-16	1000	110AVMB	--	--	--	--
26N.12E.22.123 TAOS AIRP	362746105401501	055	GW	80-07-16	0800	110AVMB	--	--	--	--
27N.09E.24.433	363312105560801	055	GW	80-07-17	0930	110AVMB	--	1192	1147	--
27N.11E.26.333	363224105445301	055	GW	80-07-16	1300	110AVMB	--	--	--	--
27N.11E.27.224	363257105444901	055	GW	80-08-05	0830	--	--	--	--	--
27N.11E.35.311	363150105445001	055	GW	80-07-16	1200	110AVMB	--	--	--	--
29N.09E.11.320	364543105572901	055	GW	80-07-16	1530	110AVMB	--	--	--	--
31N.09E.10.143	365619105583601	055	GW	80-08-13	1400	--	>500.00	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET) (72008)	FLOW RATE, INSTAN- TANEOUS (GPM) (00059)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (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)
24N.09E.11.124	80-07-17	650	--	330	7.3	22.0	96	0	27	6.9
25N.11E.28.343	80-08-05	384	--	220	8.1	19.0	82	0	20	7.7
26N.10E.14.322	80-08-05	--	--	165	7.2	9.0	77	0	22	5.4
26N.11E.21.211	80-07-17	E700	--	249	8.1	13.0	98	0	28	6.7
26N.11E.23.232	80-07-16	--	--	315	8.5	20.0	120	0	39	5.0
26N.12E.22.123 TAOS AIRP	80-07-16	--	--	395	9.0	19.0	45	0	16	1.3
27N.09E.24.433	80-07-17	--	2.0	280	8.1	16.0	79	0	27	2.7
27N.11E.26.333	80-07-16	400	--	289	8.0	25.5	110	0	28	8.9
27N.11E.27.224	80-08-05	--	--	240	8.1	13.5	89	0	26	5.9
27N.11E.35.311	80-07-16	800	--	320	8.5	23.5	140	4	36	11
29N.09E.11.320	80-07-16	1300	85	195	8.1	29.5	83	0	25	5.1
31N.09E.10.143	80-08-13	--	--	220	8.1	13.5	82	0	23	6.0

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SODIUM, AD- SORP- TION RATIO (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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)
24N.09E.11.124	80-07-17	39	1.7	8.6	150	--	123	22	30	.9
25N.11E.28.343	80-08-05	17	.8	3.8	140	--	115	8.4	2.7	.6
26N.10E.14.322	80-08-05	2.3	.1	5.7	100	--	82	7.8	2.8	.2
26N.11E.21.211	80-07-17	17	.8	4.9	170	--	139	5.2	2.8	.6
26N.11E.23.232	80-07-16	27	1.1	7.8	220	4	187	5.9	3.1	.7
26N.12E.22.123 TAOS AIRP	80-07-16	73	4.7	2.7	140	9	130	61	16	.7
27N.09E.24.433	80-07-17	31	1.5	14	180	--	148	7.8	5.8	.8
27N.11E.26.333	80-07-16	26	1.1	5.8	150	--	123	15	9.5	.6
27N.11E.27.224	80-08-05	19	.9	4.8	140	--	120	4.6	3.2	1.0
27N.11E.35.311	80-07-16	19	.7	5.4	160	3	136	21	6.2	.1
29N.09E.11.320	80-07-16	10	.5	6.6	140	--	115	4.3	2.3	.4
31N.09E.10.143	80-08-13	17	.8	5.4	130	--	99	14	4.7	.4

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

TAOS COUNTY - Continued

LOCAL IDENT- I- PIER	DATE OF SAMPLE	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, 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)
24N.09E.11.124	80-07-17	64	275	.63	--	--	40	--	--	--
25N.11E.28.343	80-08-05	50	185	1.2	6	10	40	<1	0	0
26N.10E.14.322	80-08-05	30	127	.32	1	100	40	<1	0	2
26N.11E.21.211	80-07-17	53	207	.62	6	100	30	1	10	1
26N.11E.23.232	80-07-16	32	238	1.2	--	--	70	--	--	--
26N.12E.22.123 TAOS AIRP	80-07-16	21	272	.33	2	40	80	<1	10	7
27N.09E.24.433	80-07-17	91	276	1.3	6	70	30	1	0	0
27N.11E.26.333	80-07-16	60	248	4.5	--	--	40	--	--	--
27N.11E.27.224	80-08-05	50	190	.71	--	--	200	--	--	--
27N.11E.35.311	80-07-16	52	273	9.1	--	--	40	--	--	--
29N.09E.11.320	80-07-16	58	183	.49	3	30	20	<1	0	3
31N.09E.10.143	80-08-13	41	171	.00	--	--	50	--	--	--

LOCAL IDENT- I- PIER	DATE OF SAMPLE	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)
24N.09E.11.124	80-07-17	<10	--	<3	--	--	--
25N.11E.28.343	80-08-05	<10	15	6	.0	1	0
26N.10E.14.322	80-08-05	50	0	40	.0	0	0
26N.11E.21.211	80-07-17	<10	2	1	.0	0	0
26N.11E.23.232	80-07-16	<10	--	<3	--	--	--
26N.12E.22.123 TAOS AIRP	80-07-16	170	1	3	.0	1	0
27N.09E.24.433	80-07-17	40	2	10	.0	1	0
27N.11E.26.333	80-07-16	<10	--	<3	--	--	--
27N.11E.27.224	80-08-05	60	--	6	--	--	--
27N.11E.35.311	80-07-16	20	--	30	--	--	--
29N.09E.11.320	80-07-16	120	1	30	.0	0	0
31N.09E.10.143	80-08-13	240	--	7	--	--	--

VALENCIA COUNTY

LOCAL IDENT- I- PIER	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)	FLOW RATE, INSTAN- TANEOUS (GPM) (00059)
03N.04E.03.110	343105106305301	061	GW	80-06-12	1300	--	322.00	--	--
04N.01W.12.341	343459106535401	061	GW	80-06-04	1530	112SNTF	--	--	--
04N.02E.32.100	343158106452901	061	GW	80-06-12	1700	112SNTF	22.70	--	--
04N.03E.18.220	343443106393201	061	GW	80-06-12	1030	112SNTF	296.90	370	--
05N.01W.14.231 POPALITO	343943106545901	061	GW	80-05-27	1400	112SNTF	92.99	99	--
05N.01W.32.423	343650106573501	061	GW	80-05-27	1600	112SNTF	--	412	--
05N.02W.21.422	343839107024401	061	GW	80-06-05	1100	112SNTF	545.49	620	--
05N.03E.08.222	344048106382501	061	GW	80-06-18	1430	112SNTF	--	--	--
05N.04E.03.114	344133106304801	061	GW	80-05-28	1330	--	14.00	42	--
05N.04E.09.122	344049106313901	061	GW	80-06-18	1230	--	182.85	250	--
05N.04E.29.142	343756106324301	061	GW	80-05-28	1530	--	--	--	--
05N.20W.24.122 HIGH LONE	343911108534201	061	GW	80-09-24	1200	210MNCS	112.97	180	.50
05N.20W.29.344 DEEP WELL	343733108580401	061	GW	80-09-26	1200	313SADG	264.44	1453	1.6
05N.21W.35.321 BLANCO W	343658109012701	061	GW	80-09-24	1400	--	--	--	4.0
06N.01E.33.433 J MAES WL	344147106502901	061	GW	80-06-06	1500	112SNTF	417.50	556	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

VALENCIA 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 OF WELL, TOTAL (FEET) (72008)	FLOW RATE, INSTAN- TANEOUS (GPM) (00059)
06N.01W.29.130 SHELL WEL	344310106581801		061	GW	80-06-06	0930	112SNTF	--	567	--
06N.03E.07.240	344548106393301		061	GW	80-06-13	1330	112SNTF	--	295	--
06N.04E.30.144 OJO ALAMO	344358106324201		061	SP	80-05-28	1120	--	--	--	--
06N.21W.10.222 RUTH WELL	344637109014301		061	GW	80-09-30	1730	211DKOT	150.68	270	E.50
07N.01W.23.334 ALTO WELL	344843106550601		061	GW	80-06-06	1130	112SNTF	--	576	--
07N.03E.25.220	344832106341901		061	GW	80-06-18	1730	112SNTF	480.40	655	--
07N.21W.26.111	344840109013501		061	GW	80-09-25	1400	110AVMB	34.00	--	2.0
07N.21W.26.141A	344826109011901		061	GW	80-09-25	1200	211DKOT	35.00	--	1.6
08N.20W.08.443 CHAVEZ SP	345557108574801		061	SP	80-02-26	0900	231CHNL	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS 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)
03N.04E.03.110	80-06-12	440	8.1	22.4	170	22	47	13	34	1.1
04N.01W.12.341	80-06-04	5100	7.3	15.2	1600	1400	360	160	720	7.9
04N.02E.32.100	80-06-12	281	8.3	22.0	110	0	29	9.0	23	1.0
04N.03E.18.220	80-06-12	265	8.5	24.9	41	0	12	2.7	43	2.9
05N.01W.14.231 POPALITO	80-05-27	3600	7.0	18.0	1400	1100	380	120	430	4.9
05N.01W.32.423	80-05-27	1400	7.9	22.0	110	0	27	11	300	12
05N.02W.21.422	80-06-05	4290	7.5	21.5	330	0	78	32	850	20
05N.03E.08.222	80-06-18	250	8.0	21.9	100	0	34	4.7	17	.7
05N.04E.03.114	80-05-28	240	7.7	11.0	100	2	32	5.0	12	.5
05N.04E.09.122	80-06-18	318	8.1	19.0	140	50	40	8.8	16	.6
05N.04E.29.142	80-05-28	330	8.5	23.0	24	0	6.8	1.8	69	6.1
05N.20W.24.122 HIGH LONE	80-09-24	500	7.6	15.0	230	48	73	11	7.9	.2
05N.20W.29.344 DEEP WELL	80-09-26	1350	8.4	23.0	490	210	140	34	69	1.4
05N.21W.35.321 BLANCO W	80-09-24	1300	7.6	16.5	310	200	54	42	75	1.9
06N.01E.33.433 J MAES WL	80-06-06	875	8.0	20.7	210	13	57	17	130	3.9
06N.01W.29.130 SHELL WEL	80-06-06	5400	8.0	18.8	840	640	220	71	1100	17
06N.03E.07.240	80-06-13	315	8.2	20.7	130	7	37	9.3	23	.9
06N.04E.30.144 OJO ALAMO	80-05-28	340	7.8	15.5	150	19	52	4.9	19	.7
06N.21W.10.222 RUTH WELL	80-09-30	900	8.5	18.0	370	210	99	31	49	1.1
07N.01W.23.334 ALTO WELL	80-06-06	1380	8.0	16.2	420	340	110	35	160	3.4
07N.03E.25.220	80-06-18	305	7.9	23.0	97	0	33	3.5	31	1.4
07N.21W.26.111	80-09-25	1400	7.3	15.5	540	250	150	40	130	2.4
07N.21W.26.141A	80-09-25	1400	7.8	--	460	300	120	40	130	2.6
08N.20W.08.443 CHAVEZ SP	80-02-26	1400	7.1	9.5	410	130	140	14	180	3.9

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA) (00933)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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)
03N.04E.03.110	80-06-12	--	2.6	180	--	148	55	26	.8	23
04N.01W.12.341	80-06-04	--	11	240	--	197	2400	330	.6	16
04N.02E.32.100	80-06-12	--	4.6	--	--	120	30	13	.4	56
04N.03E.18.220	80-06-12	--	1.6	97	4	86	56	4.5	.7	29
05N.01W.14.231 POPALITO	80-05-27	--	12	--	--	300	1800	220	.5	17
05N.01W.32.423	80-05-27	--	8.5	--	--	190	460	83	1.9	21
05N.02W.21.422	80-06-05	--	26	590	--	484	560	850	2.2	18
05N.03E.08.222	80-06-18	--	1.9	130	--	107	22	7.3	.6	40
05N.04E.03.114	80-05-28	--	.6	120	--	98	28	7.3	.3	17
05N.04E.09.122	80-06-18	--	.6	110	--	90	28	8.2	.4	19

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

VALENCIA COUNTY - Continued

LOCAL IDENT- IFIER	DATE OF SAMPLE	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA) (00933)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (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)
05N.04E.29.142	80-05-28	--	1.5	140	--	115	51	12	.9	25
05N.20W.24.122 HIGH LONE	80-09-24	--	1.7	--	--	180	23	32	.4	27
05N.20W.29.344 DEEP WELL	80-09-26	--	9.7	--	--	280	250	60	2.0	15
05N.21W.35.321 BLANCO W	80-09-24	--	10	--	--	110	290	60	1.5	14
06N.01E.33.433 J MAES WL	80-06-06	--	5.8	240	--	197	240	32	.9	24
06N.01W.29.130 SHELL WEL	80-06-06	--	15	240	--	197	1400	1200	.6	17
06N.03E.07.240	80-06-13	--	3.6	150	--	123	37	9.2	.7	41
06N.04E.30.144 OJO ALAMO	80-05-28	--	.6	160	--	131	34	9.0	.4	11
06N.21W.10.222 RUTH WELL	80-09-30	--	3.2	--	--	160	240	31	.4	20
07N.01W.23.334 ALTO WELL	80-06-06	--	8.8	96	--	79	640	21	1.0	26
07N.03E.25.220	80-06-18	--	1.8	150	--	123	30	5.4	.3	26
07N.21W.26.111	80-09-25	--	3.1	--	--	290	490	25	.7	16
07N.21W.26.141A	80-09-25	--	2.7	--	--	160	520	21	.7	17
08N.20W.08.443 CHAVEZ SP	80-02-26	180	4.4	--	--	280	120	290	.6	15

LOCAL IDENT- IFIER	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)
03N.04E.03.110	80-06-12	290	.08	--	--	60	--	--	--	<10
04N.01W.12.341	80-06-04	4140	4.6	--	--	730	--	--	--	100
04N.02E.32.100	80-06-12	240	.60	8	90	10	<1	20	2	30
04N.03E.18.220	80-06-12	202	.24	--	--	60	--	--	--	<10
05N.01W.14.231 POPALITO	80-05-27	3180	3.5	--	--	400	--	--	--	110
05N.01W.32.423	80-05-27	1030	.81	1	10	350	<1	0	2	10
05N.02W.21.422	80-06-05	2710	1.6	--	--	0	--	--	--	80
05N.03E.08.222	80-06-18	212	4.6	--	--	20	--	--	--	50
05N.04E.03.114	80-05-28	163	.33	--	--	20	--	--	--	<10
05N.04E.09.122	80-06-18	181	1.2	--	--	30	--	--	--	20
05N.04E.29.142	80-05-28	241	.75	--	--	120	--	--	--	280
05N.20W.24.122 HIGH LONE	80-09-24	293	2.0	--	--	60	--	--	--	10
05N.20W.29.344 DEEP WELL	80-09-26	755	.00	--	--	140	--	--	--	6900
05N.21W.35.321 BLANCO W	80-09-24	630	.00	--	--	140	--	--	--	17000
06N.01E.33.433 J MAES WL	80-06-06	633	1.7	--	--	250	--	--	--	330
06N.01W.29.130 SHELL WEL	80-06-06	4140	.20	--	--	900	--	--	--	220
06N.03E.07.240	80-06-13	235	.07	--	--	60	--	--	--	30
06N.04E.30.144 OJO ALAMO	80-05-28	218	1.8	--	--	40	--	--	--	<10
06N.21W.10.222 RUTH WELL	80-09-30	614	10	--	--	120	--	--	--	40
07N.01W.23.334 ALTO WELL	80-06-06	1050	1.1	--	--	200	--	--	--	50
07N.03E.25.220	80-06-18	211	1.3	--	--	50	--	--	--	10
07N.21W.26.111	80-09-25	1030	.99	--	--	160	--	--	--	60
07N.21W.26.141A	80-09-25	952	.85	--	--	140	--	--	--	220
08N.20W.08.443 CHAVEZ SP	80-02-26	968	8.1	--	--	--	--	--	--	10

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

VALENCIA COUNTY - Continued

LOCAL IDENT- IFIER	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)
03N.04E.03.110	80-06-12	--	4	--	--	--
04N.01W.12.341	80-06-04	--	10	--	--	--
04N.02E.32.100	80-06-12	0	<1	.0	3	0
04N.03E.18.220	80-06-12	--	<1	--	--	--
05N.01W.14.231 POPALITO	80-05-27	--	10	--	--	--
05N.01W.32.423	80-05-27	1	20	.1	4	0
05N.02W.21.422	80-06-05	--	20	--	--	--
05N.03E.08.222	80-06-18	--	2	--	--	--
05N.04E.03.114	80-05-28	--	<1	--	--	--
05N.04E.09.122	80-06-18	--	20	--	--	--
05N.04E.29.142	80-05-28	--	3	--	--	--
05N.20W.24.122 HIGH LONE	80-09-24	--	7	--	--	--
05N.20W.29.344 DEEP WELL	80-09-26	--	70	--	--	--
05N.21W.35.321 BLANCO W	80-09-24	--	230	--	--	--
06N.01E.33.433 J MAES WL	80-06-06	--	20	--	--	--
06N.01W.29.130 SHELL WEL	80-06-06	--	60	--	--	--
06N.03E.07.240	80-06-13	--	6	--	--	--
06N.04E.30.144 OJO ALAMO	80-05-28	--	20	--	--	--
06N.21W.10.222 RUTH WELL	80-09-30	--	20	--	--	--
07N.01W.23.334 ALTO WELL	80-06-06	--	7	--	--	--
07N.03E.25.220	80-06-18	--	3	--	--	--
07N.21W.26.111	80-09-25	--	2	--	--	--
07N.21W.26.141A	80-09-25	--	70	--	--	--
08N.20W.08.443 CHAVEZ SP	80-02-26	--	10	--	--	--

	Page		Page
Abiquiu Dam, Rio Chama below.....	145-146	Black Springs Wash near Mexican Springs.....	491,576
Abiquiu Reservoir near Abiquiu.....	144	Blackwater Draw tributary near Floyd (crest).....	568
Rio Chama above.....	142-143	Blanco, Canon Largo Wash near.....	419-421
Abeyta Trujillo Ditch near Abiquiu.....	150	Bland Canyon near Cochiti (crest).....	568
Abo Arroyo tributary near Scholle (crest).....	569	Blue-green algae, definition of.....	6
Accuracy of field data and computed results.....	13	Bluewater, Bluewater Lake near.....	228
Acequia Madre at Costilla.....	87	Bluewater Creek near Tucumcari (crest).....	567
Acme, Pecos River near.....	333-334	Bluewater Lake near Bluewater.....	228
Acres-foot, definition of.....	2	Bluff, UT, San Juan River near.....	534
Adenosine triphosphate, definition of.....	2	Bonita Canyon tributary nr Corona (crest).....	571
Ah-Shi-sle-pah Wash near Kimbeto.....	485-488	Bottom material, definition of.....	3
Alameda, North Floodway channel near.....	195	Brazos River basin, crest-stage partial-record stations in.....	568
Alamosa Creek near Monticello (misc).....	570-579	Bueyeros Creek at Bueyeros (crest).....	567
Alamosa Creek tributary near Jordan (crest).....	571	Burnham, Burnham Wash near.....	497-500
Albuquerque, Rio Grande at.....	196-201	Chaco River near.....	501-504
Tijeras Arroyo at (crest).....	569	Teec-mi-di-tso Wash near.....	494-496
Tijeras Arroyo near.....	202	Burro Canyon near Lindrith (crest).....	576
Aleman Draw at Aleman (crest).....	570		
Algae, definition of.....	2	Caballo Dam, Rio Grande below.....	289
Algal growth potential, definition of.....	2	Caballo Reservoir near Arrey.....	288
Alma, San Francisco River near.....	561	Cabresto Creek near Questa.....	100-102
Alto, Eagle Creek below South Fork near.....	337	Cameron Creek at Central (crest).....	573
Eagle Creek near.....	338	Canada de la Cueva near Galisteo (crest).....	569
Amalia, Costilla Creek near.....	83	Canada Montoso near Scholle (crest).....	569
Analysis of samples collected at, miscellaneous sites.....	588-593	Canadian River, above New Mexico-Texas State line.....	65-68,579
water-quality partial-record stations.....	585-587	at Logan.....	61
Animas Creek near Cloverdale (crest).....	577	below Conchas Dam (misc).....	579
Animas River, at Farmington.....	434-441	near Hebron.....	21-22
near Cedar Hill.....	433	near Sanchez.....	45-48
Antelope Draw near Jal (crest).....	573	near Taylor Springs.....	40
Anton Chico, Pecos River near.....	309	Canadian River tributary near Mills (crest).....	566
Aquifer, definition of.....	2	Canjilon Creek above Abiquiu Reservoir (crest).....	568
Aragon, Tularosa River above.....	560	Canon de Torreon at Torreon (crest).....	575
Aragon Creek tributary near Encinoso (crest).....	571	Canon Blanco near Leyba (crest).....	570
Arboles, CO, Piedra River near.....	412	Canon Largo Wash near Blanco.....	419-421
Archuleta, Navajo Reservoir near.....	415	Capulin, Bennett Spring near.....	19
San Juan River near.....	416-418	Carlsbad, Dark Canyon Draw at.....	373
Arkansas River basin, crest-stage partial-record stations in.....	566-568	Lake Avalon near.....	367-368
discharge measurements at miscellaneous sites in.....	579	Pecos River at.....	370-372
gaging station records in.....	19-68	Pecos River below Dark Canyon Draw at.....	374-375
Arrey, Caballo Reservoir near.....	288	Pecos River near.....	363-365
Arroyo Chico near Guadalupe.....	225-227	Rocky Arroyo near.....	364
Arroyo del Cuervo near Torreon (crest).....	575	Carlsbad main canal near Carlsbad.....	366
Arroyo del Puerto near Endee (crest).....	567	Carracas, CO, San Juan River near.....	411
Arroyo Hondo, Arroyo Hondo at.....	115-117	Carrizo Creek at Ruidoso (misc).....	579
Rio Grande near.....	118	Carrizo Creek near Roy (crest).....	567
Arroyo Seco, Rio Lucero near.....	120	Carrizo Creek near Salt Lake (crest).....	577
Arroyo Seco tributary near Pojoaque (crest).....	568	Carrizozo Creek near Kenton, OK (crest).....	566
Artesia, Pecos River near.....	347-354	Casias Creek near Costilla.....	79
Artesian, definition of.....	3	Catron County, quality of ground-water in.....	625-628
Artificial substrate, definition of.....	7	Cedar Hill, Animas River near.....	433
Ash mass, definition of.....	3	Cells/volume, definition of.....	3
Avalon Dam, Pecos River below.....	369	Cerrillos, Galisteo Reservoir near.....	183
Azotea tunnel at outlet, near Chama.....	135	Cerro, Rio Grande above Red River near.....	91-92
		Cerro, Rio Grande near.....	88-90
Bacteria, definition of.....	3	Cerro Canal, at Costilla.....	87
Bandelier National Monument, Rito de los Frijoles in... 171-172		at State line near Jaroso, CO.....	87
Bed material, definition of.....	3	below Association Ditch, at Costilla.....	87
Belen Highline Canal trib near Los Lunas (crest).....	569	New Mexico Branch, near Jaroso, CO.....	87
Bell Ranch Canal below Conchas Dam.....	50	Cfs-day, definition of.....	3
Bennett Spring near Capulin.....	19	Chaco River, near Burnham.....	501-504
Bent, Rio Tularosa near.....	405-410	near waterflow.....	505-512
Bernalillo, Jemez Canyon Reservoir near.....	191	Chaco Wash, at Chaco Canyon National Monument.....	481-483
Bernalillo County, ground-water levels in.....	596	near Star Lake Trading Post.....	475-480
quality of ground water in.....	621-625	Chama, Azotea tunnel at outlet near.....	135
Bernardo, Bernardo interior drain near.....	216	Chamita, Rio Chama near.....	148-149
Lower San Juan Riverside drain near.....	209	Chamita ditch near Chamita.....	151
Rio Grande conveyance channel near.....	208	Chaves County, ground-water levels in.....	596-599
Rio Grande floodway near.....	209-215	Chavez Draw tributary near Clines Corners (crest).....	575
Rio Puerco near.....	237-241	Chemical oxygen demand, definition of.....	3
Bernardo interior drain near Bernardo.....	216	Chicorica Creek near Hebron.....	26,579
Big Draw near Mountainair (crest).....	575	Chicorica Creek tributary near Raton (crest).....	566
Biological data, explanation of.....	14	Chili ditch near Hernandez.....	151
Biochemical oxygen demand, definition of.....	3	Chlorophyll, definition of.....	4
Biomass, definition of.....	3	Chupadera Wash tributary at Bingham (crest).....	570
Bisti Trading Post, De-na-zin Wash near.....	489-490	Cieneguilla Creek near Eagle Nest.....	31
Hunter Wash at.....	492-493	Cimarron, Cimarron River near.....	36
Black Prince Canyon tributary near Organ (crest).....	574	Ponil Creek near.....	37
Black River above Malaga.....	376	Rayado Creek at Sauble Ranch, near.....	38

	Page		Page
Cimarron River, at Springer.....	39	Eagle Creek, below South Fork near Alto.....	337
below Eagle Nest Dam.....	34-35	near Alto.....	338
near Cimarron.....	36	Eagle Nest, Cieneguilla Creek near.....	31
near Kenton, OK.....	20	Eagle Nest Lake near.....	33
Clear Creek near Ute Park (crest).....	566	Moreno Creek at.....	30
Cliff, Mogollon Creek near.....	546-549	Sixmile Creek near.....	32
Cloud Canyon tributary near Gallinas (crest).....	571	Eagle Nest Dam, Cimarron River below.....	34-35
Cochiti Dam, Rio Grande below.....	178-182	Eagle Nest Lake near Eagle Nest.....	33
Cochiti eastside main canal at head.....	178	Eagle Tail ditch near Maxwell.....	27
Cochiti Lake, near Cochiti Pueblo.....	177	Eastdale No. 1 intake canal near Jaroso, CO.....	87
Santa Fe River above.....	176	Eddy County, ground-water levels in.....	601-605
Colfax County, ground-water levels in.....	599	quality of ground water in.....	634-638
Collection and computation of data (SW).....	11	Eight Mile Draw near Roswell (crest).....	572
Collection and examination of data (QW).....	13	El Paso, TX, Rio Grande at.....	290-296
Collection of data (GW).....	14	El Vado Dam, Rio Chama below.....	141
Colonias, Gallinas River near.....	311	El Vado Reservoir near Tierra Amarilla.....	140
Pecos River near.....	312	Elephant Butte Dam, Rio Grande below.....	282-287
Color unit, definition of.....	4	Elephant Butte Reservoir at Elephant Butte.....	281
Conchas Dam, Bell Ranch Canal below.....	50	Embudo, Rio Grande at.....	132
Canadian River below (misc).....	579	Embudo Creek at Dixon.....	130-131
Conchas Canal below Conchas Lake at.....	50	Encinal Creek near Casa Blanca (crest).....	569
Conchas Canal below Conchas Dam.....	50	Estancia Valley, crest-stage partial-record	
Conchas Lake at Conchas Dam.....	51	stations in.....	574
Conchas River at Variadero.....	49	Estancia Valley tributary at Cedar Grove (crest).....	574
Contents, definition of.....	4	Explanation of, ground-water level records.....	14
Control, definition of.....	4	Stage and water-discharge records.....	11
Control structure, definition of.....	4	Water-quality records.....	13
Cooperation.....	1		
Copperas Canyon near Pinos Altos (crest).....	577	F. Herrera ditch S. at Hollywood.....	335
Cordillera ditch at Garcia, CO.....	87	Farmington, Animas River at.....	434-441
Correo, Rio San Jose at.....	236	Gallegos Canyon Wash near.....	430-432
Costilla, Casias Creek near.....	79	La Plata River near.....	451-458
Costilla Creek below diversion dam, at.....	85	San Juan River at.....	442-446
Costilla Creek near.....	84	Fecal coliform bacteria, definition of.....	3
Costilla Reservoir near.....	80	Fecal streptococcal bacteria, definition of.....	3
Santistevan Creek near.....	81	Ferran ditch near Abiquiu.....	150
Costilla County, CO, ground-water levels in.....	599	Fleming Draw near Pinon (crest).....	575
Costilla Creek, above Costilla Dam.....	78	Fort Sumner, Lake Sumner near.....	324-325
at Garcia, CO.....	86	Fort Sumner main canal near Fort Sumner.....	332
below Costilla Dam.....	82	Four Corners, San Juan River at.....	526-533
below diversion dam, at Costilla.....	85	Fourmile Draw near Lakewood.....	357
diversions from.....	87	Fruitland, San Juan River near.....	459-466
near Amalia.....	83	Shumway Arroyo near.....	467
near Costilla.....	84	Fullingim Draw near Nara Visa (crest).....	567
Costilla Dam, Costilla Creek above.....	78		
Costilla Creek below.....	82	Gage height, definition of.....	4
Costilla Reservoir near Costilla.....	81	Gaging station, definition of.....	4
Coyote Creek, near Golondrinas.....	43	Galestena Canyon tributary near Black Rock (crest)....	577
Coyote Wash tributary near Naschitti (crest).....	576	Galisteo Creek, at Canoncito (crest).....	568
Crest-stage partial-record stations.....	566-580	below Galisteo Dam.....	184
Crow Flats, crest-stage partial-record station in.....	575	Galisteo Reservoir near Cerrillos.....	183
Cubic foot per second, definition of.....	4	Gallegos Canyon tributary near Nageezi (crest).....	576
Cundiyo, Santa Cruz River at.....	152	Gallegos Canyon Wash near Farmington.....	430-432
Curry County, ground-water levels in.....	600-601	Gallinas Creek near Montezuma.....	310
Curtis Canyon near Mayhill (crest).....	572	Gallinas River near Colonias.....	311
		Gallo Canyon near Picacho (crest).....	572
Dark Canyon Draw at Carlsbad.....	373	Gallo Wash at Chaco Canyon National Monument.....	484
Dawson, Vermejo River near.....	28-29	Garcia, CO, Costilla Creek at.....	86
Dayton, Rio Penasco at.....	355	Garita Creek tributary near Variadero (crest).....	567
Deer Creek tributary near Antelope Wells (crest).....	573	Gila River, below Blue Creek, near Virden.....	558
Definition of terms.....	2	near Gila.....	545
Delaware River near Red Bluff.....	394	Gila River near Redrock.....	551-557
De-na-zin Wash near Bisti Trading Post.....	489-490	Gila River basin, crest-stage partial-record	
Diatoms, definition of.....	6	stations in.....	577-578
Discharge, definition of.....	4	gaging station records in.....	545-564
Dissolved, definition of.....	4	measurements at miscellaneous sites in.....	580
Diversions from Rio Chama.....	150-151	Gobernador Canyon near Gobernador (crest).....	575
Diversity index, definition of.....	4	Golondrinas, Coyote Creek near.....	43
Dixon, Embudo Creek at.....	130-131	Mora River near.....	42
Dog Creek near Shoemaker (crest).....	567	Gonzales ditch at Abiquiu.....	150
Dona Ana County, ground-water levels in.....	601	Grant County, quality of ground-water in.....	638-639
quality of ground water in.....	628-634	Grants, Rio San Jose at.....	230-231
Downstream order and station number.....	9	Rio San Jose near.....	233-234
Drainage area, definition of.....	4	Grants Canyon at Grants.....	232
Drainage basin, definition of.....	4	Green algae, definition of.....	6
Dry mass, definition of.....	3	Green Mountain Arroyo near Raton (crest).....	566
Duck Creek at Cliff (crest).....	577	Ground water, quality of.....	621-673
		Guadalupe, Arroyo Chico near.....	225-227
		Rio Puerco near.....	221
		Guique ditch near San Juan Pueblo.....	133

	Page		Page
Hagerman, Pecos River near.....	344	Lakes and reservoirs - continued	
Rio Felix near.....	345	Nichols Reservoir near Santa Fe.....	175
Harding County, ground-water levels in.....	605	Red Bluff Reservoir near Orla, TX.....	395
Hardness, definition of.....	4	Sumner, Lake, near Fort Sumner.....	324-325
Hebron, Canadian River near.....	21-22	Two Rivers Reservoir near Roswell.....	340
Chicorica Creek near.....	26	Ute Reservoir near Logan.....	53-60
Hernandez ditch near Hernandez.....	151	Largo Creek near Quemado (crest).....	577
Heron Dam, Willow Creek below.....	139	Last Chance Canyon tributary near Carlsbad Caverns (cr)...	572
Heron Reservoir near Los Ojos.....	138	Lea County, ground-water levels in.....	606-608
Hidalgo County, ground-water levels in.....	605-606	Lea County, quality of ground-water in.....	639-640
Hollywood, F. Herrera ditch S. at.....	335	Lincoln County, ground-water levels in.....	608-609
Rio Ruidoso at.....	336	Little Colorado River basin, crest-stage partial-	
Horse Lake Creek above Heron Reservoir near Los Ojos..	137	record stations in.....	577
Hunter Wash at Bisti Trading Post.....	492-493	Gaging station records in.....	535-544
Hunter Wash tributary at Bisti Trading Post (crest)...	576	Little Walnut Creek near Silver City (crest).....	573
Hyatt Canyon near Cloudcroft (crest).....	572	Llano ditch near Questa.....	100
Hydrologic bench-mark station, definition of.....	10	Lobatos, CO, Rio Grande near.....	69-76
Hydrologic conditions.....	2	Locke Arroyo near Kirtland (crest).....	576
Hydrologic-data station records.....	19-564	Logan, Canadian River at.....	61
Hydrologic unit, definition of.....	5	Revuelto Creek near.....	62-64
		Ute Creek near.....	52
Indian Creek at mouth, near Three Rivers (crest).....	574	Ute Reservoir near.....	53-60
Indian Creek near Three Rivers (crest).....	574	Los Esteros Creek above Santa Rosa Lake.....	314
Instantaneous discharge, definition of.....	4	Los Esteros Creek tributary above Santa Rosa Lake.....	315
Introduction.....	1	Los Cordovas, Rio Pueblo de Taos below.....	125
		Los Ojos, Heron Reservoir near.....	138
Jemez, Jemez River near.....	190	Horse Lake Creek above Heron Reservoir near.....	137
Jemez Canyon Dam, Jemez River below.....	192-194	Willow Creek above Heron Reservoir near.....	136
Jemez Canyon Reservoir near Bernalillo.....	191	Los Pinos River at La Boca, CO.....	413
Jemez River, below Jemez Canyon Dam.....	192-194	Lower San Juan Riverside drain near Bernardo.....	209
near Jemez.....	190	Luna County, ground-water levels in.....	609-611
Jose Pablo Gonzales ditch near Abiquiu.....	150	Luna County, quality of ground-water in.....	640-642
Jose V. Martinez ditch near Medanales.....	150		
Juan Tomas Canyon near Edgewood (crest).....	574	Mail Hollow near Luna (crest).....	577
Juan Toro Canyon near Miera (crest).....	569	Malaga, Pecos River near.....	377-381
		Black River above.....	376
Kenton, OK, Cimarron River near.....	20	Mangas Creek (tributary to Gila River) below	
Kimbetto, Ah-shi-slep-pah Wash near.....	485-488	Mangas Springs.....	550
La Boca, CO, Los Pinos River at.....	413	Mangas Creek tributary near Pletown (crest).....	577
Spring Creek at.....	414	Manzanares Canyon near Turley (crest).....	576
La Cueva, Mora River at.....	41	Manzanares and Montoya ditch near Medanales.....	150
La Cueva Canal below La Cueva.....	41	Map of New Mexico showing location of	
La Jencia Creek, near Magdalena (crest).....	570	Hydrologic units.....	16
La Madera, Rio Ojo Caliente at.....	147	Observation wells.....	595
La Plata River, at Colo.-N.Mex. State line.....	447	Partial-record stations (SW).....	565
near Farmington.....	451-458	Surface-water stations.....	17
La Plata River tributary near Farmington.....	448-450,	Water-quality stations.....	18
	576	Mariano ditch near Abiquiu.....	150
La Puente, Rio Chama near.....	134	Martinez and Duranes ditch near Medanales.....	151
La Puente ditch near Abiquiu.....	150	Maxwell, Eagle Tail ditch near.....	27
Lagartija Creek tributary near Sanchez (crest).....	567	McClure Reservoir near Santa Fe.....	173
Laguna, Rio Paguate below Jackpile Mine near.....	235	McKinley County, quality of ground water in.....	642-645
Lake Alice near Raton.....	23	Mean concentration, definition of.....	7
Lake Arthur, Pecos River near.....	346	Mean discharge, definition of.....	4
Lake Avalon near Carlsbad.....	367-368	Measurements at miscellaneous sites.....	579-580
Lake Maloya near Raton.....	23	Mesa ditch near Garcia, CO.....	87
Lake McMillan near Lakewood.....	358-359	Metamorphic stage, definition of.....	5
Lake Sumner near Fort Sumner.....	324-325	Methylene blue active substance, definition of.....	5
Lakewood, Fourmile Draw near.....	357	Mexican Canyon at Virden (crest).....	577
Lake McMillan near.....	358-359	Micrograms per gram, definition of.....	5
Pecos River near.....	356-362	Micrograms per liter, definition of.....	5
South Seven Rivers near.....	362	Milk Ranch Canyon near Fort Wingate (crest).....	577
Lakes and reservoirs:		Milligrams per liter, definition of.....	5
Abiquiu Reservoir near Abiquiu.....	144	Mimbres basin tributary near Florida (crest).....	573
Alice, Lake, near Raton.....	23	Mimbres River, at Deming (crest).....	573
Avalon, Lake, near Carlsbad.....	367-368	at Mimbres.....	399-404
Bluewater Lake near Bluewater.....	228	Mimbres River basin, crest-stage partial-record	
Caballo Reservoir near Arrey.....	288	stations in.....	573
Cochiti Lake near Cochiti Pueblo.....	177	Minnie Hall Draw near Three Rivers (crest).....	574
Conchas Lake at Conchas Dam.....	51	Mogollon Creek near Cliff.....	546-549
Costilla Reservoir near Costilla.....	81	Monastery Pump near Alire.....	150
Eagle Nest Lake near Eagle Nest.....	33	Montezuma, Gallinas Creek near.....	310
Elephant Butte Reservoir at Elephant Butte.....	281	Monument Draw near Monument (crest).....	568
El Vado Reservoir near Tierra Amarilla.....	140	Monument Draw tributary near Monument (crest).....	573
Galisteo Reservoir near Cerrillos.....	183	Mora County, ground-water levels in.....	611
Heron Reservoir near Los Ojos.....	138	Mora River, at La Cueva.....	41
Maloya, Lake, near Raton.....	23	near Colondras.....	42
Jemez Canyon Reservoir near Bernalillo.....	191	near Shoemaker.....	44
McClure Reservoir near Santa Fe.....	173	Moreno Creek at Eagle Nest.....	30
McMillan, Lake, near Lakewood.....	358-359	Mosley Canyon near White City (crest).....	572
Nambe Falls Reservoir near Nambe.....	153		
Navajo Reservoir near Archuleta.....	415		

	Page		Page
Nambe, Rio Nambe below Nambe Falls Dam, near.....	154	Publications on techniques of water-resources investigations.....	15
Nambe Falls Reservoir near Nambe.....	153	Puerco River near Churchrock.....	540-542
National Geodetic Vertical datum.....	5	Puerco River at Gallup.....	543-544
National stream-quality accounting network.....	10	Puerto de Luna, Pecos River near.....	321-323
Natural substrate, definition of.....	7		
Navajo Reservoir near Archuleta.....	415	Quality of ground water.....	621-673
Negro Canyon at Aragon (crest).....	577	Quay County, ground-water levels in.....	612-613
New Mexico Branch Cerro canal near Jaroso, CO.	87	Questa, Cabresto Creek near.....	100-102
Nichols Reservoir near Santa Fe.....	175	Red River above Fish Hatchery near.....	105-106
Nogal Creek tributary near Nogal (crest).....	574	Red River at mouth, near.....	110-111
North Floodway Channel near Alameda.....	195	Red River below.....	103-104
North Spring River at Roswell (crest).....	572	Red River below Fish Hatchery near.....	107-109
Numbering system for wells, springs, and miscellaneous sites.....	9	Red River near.....	97-99
		Quintana ditch near Abiquiu.....	150
Organic mass, definition of.....	3		
Organism, definition of.....	5	Radiochemical program, explanation of.....	10
Organism count, per unit area, definition of.....	5	Ranchito, Rio Pueblo de Taos near.....	122
per unit volume, definition of.....	5	Raton, Lake Alice near.....	23
Orla, TX, Red Bluff Reservoir near.....	395	Lake Maloya near.....	23
Pecos River near.....	396-398	Una de Gato Creek near.....	24-25
Osita Draw near Clines Corners (crest).....	575	Raton Creek at Raton (crest).....	566
Otero County, ground-water levels in.....	612	Rayado Creek at Sauble Ranch, near Cimarron.....	38
Otero County, quality of ground-water in.....	645	Red Bluff, Delaware River near.....	394
Other data available.....	13	Pecos River at.....	386-393
		Red Bluff Reservoir near Orla, TX.....	395
Pajarito Creek at Newkirk (crest).....	567	Red Colt Canyon at Pleasanton (crest).....	578
Papers Wash near Star Lake Trading Post.....	222-224	Red River, above Fish Hatchery, near Questa.....	105-106
Partial-record station, definition of.....	5	at MolyCorp Mine near Red River.....	95-96
Particle size, definition of.....	5	at mouth near Questa.....	110-111
Particle size classification, definition of.....	5	below Fish Hatchery near Questa.....	107-109
Pancho Canyon near Arabella (crest).....	572	below Questa.....	103-104
Pecos, Pecos River near.....	308	below Zwergle damsite near Red River.....	93-94
Pecos River, above Canon del Uta.....	312	near Questa.....	97-99
above Santa Rosa Lake.....	313	Redrock, Gila River near.....	551-557
above Seven Rivers, near Lakewood.....	361	Reserve, San Francisco River near.....	559
at Carlsbad.....	370-372	Reservoirs, see Lakes and reservoirs.....	676
at damsite 3, near Carlsbad.....	365	Reuelto Creek near Logan.....	62-64
at Pierce Canyon Crossing, near Malaga.....	382-385	Rio Amargo at Dulce (crest).....	575
at Red Bluff.....	386-393	Rio Arriba County, quality of ground-water in.....	646-647
Pecos River, at Santa Rosa.....	317-320	Rio Bonito near Fort Stanton (crest).....	571
below Avalon Dam.....	369	Rio Bonito tributary near Fort Stanton (crest).....	572
below Dark Canyon Draw, at Carlsbad.....	374-375	Rio Chama, above Abiquiu Reservoir.....	142-143
below Major Johnson Springs near Carlsbad.....	363	below Abiquiu Dam.....	145-146
below McMillan Dam.....	360	below El Vado Dam.....	141
below Santa Rosa Dam.....	316	near Chamita.....	148-149
below Sumner Dam.....	326-331	near La Puente.....	134
Kaiser Channel near Lakewood.....	356	Rio Chiquito near Talpa.....	124
near Acme.....	333-334	Rio de Chama ditch near Medanales.....	150
near Anton Chico.....	309	Rio de las Vacas near Senorita (crest).....	569
near Artesia.....	347-354	Rio del Plano tributary near Taylor Springs (crest).....	566
near Hagerman.....	344	Rio En Medio near Santa Fe (crest).....	568
near Lake Arthur.....	346	Rio Felix at old highway bridge, near Hagerman.....	345
near Malaga.....	377-381	Rio Fernando de Taos near Taos.....	121
near Orla, TX.....	396-398	Rio Grande, above Red River near Cerro.....	91-92
near Pecos.....	308	above San Juan Pueblo.....	133
near Puerto de Luna.....	321-323	above Rio Hondo at Dunn Bridge.....	112-113
Pecos River tributary, near Dilia (crest).....	570	at Albuquerque.....	196-201
near Pintada (crest).....	571	at Colorado-New Mexico State line.....	77
near Puerto de Luna (crest).....	571	at El Paso, TX.....	290-296
near Sena (crest).....	570	at Embudo.....	132
Pena Blanca Arroyo near Newcomb (crest).....	576	at Isleta.....	204-207
Percent composition, definition of.....	5	at Otowi Bridge, near San Ildefonso.....	155-170
Percha Creek, near Hillsboro (crest).....	570	at San Felipe.....	185-189
near Kingston (crest).....	570	below Caballo Dam.....	289
Periphyton, definition of.....	6	below Cochiti Dam.....	178-182
Pesticide program, definition of.....	6	below Elephant Butte Dam.....	282-287
Phytoplankton, definition of.....	6	below Old Fort Quitman, TX.....	297-303
Picocurie, definition of.....	6	below Taos Junction Bridge, near Taos.....	126-129
Piedra River near Arboles.....	412	near Arroyo Hondo.....	118
Pine Canyon near Thoreau (crest).....	569	near Cerro.....	88-90
Pinos Altos Creek at Silver City (crest).....	573	near Lobatos, CO.....	69-76
Pintada Arroyo near Santa Rosa (crest).....	571	Rio Grande basin, crest-stage partial-record stations in.....	568-573
Pintada Arroyo tributary, near Encino (crest).....	571	discharge measurements at miscellaneous sites in.....	579-580
Plankton, definition of.....	6	gaging station records in.....	69-404
Playas Valley, crest-stage partial-record station in.....	573	water-quality miscellaneous sites in.....	588-591
Plaza Larga Creek tributary near Ragland (crest).....	567	water-quality partial-record stations in.....	585
Polychlorinated biphenols, definition of.....	6	Rio Grande conveyance channel, at San Acacia.....	245-251
Ponil Creek near Cimarron.....	37	at San Marcial.....	257-262
Primary productivity, definition of.....	6	near Bernardo.....	208
		Rio Grande del Rancho near Talpa.....	123

	Page		Page
Rio Grande floodway, at San Acacia.....	252-256	Santa Fe, Nichols Reservoir near.....	175
at San Marcial.....	262-280	Santa Fe River near.....	174
near Bernardo.....	209-215	Santa Fe County, ground-water levels in.....	614-615
Rio Grande tributary near Radium Springs (crest).....	570	Santa Fe River, above Cochiti Lake.....	176
Rio Hondo, at Diamond A Ranch, near Roswell.....	339	near Santa Fe.....	174
below Diamond A Dam, near Roswell.....	341	Santa Rosa, Pecos River at.....	317-320
Rio Hondo near Valdez (trib to Rio Grande).....	114	Santa Rosa Dam, Pecos River below.....	316
(see also "Arroyo Hondo")		Santa Rosa Lake, Los Esteros Creek above.....	314
Rio Hondo tributary at Tinnie (crest).....	572	Los Esteros Creek tributary above.....	315
Rio Lucero near Arroyo Seco.....	120	Pecos River above.....	313
Rio Mora near Terrero.....	304-307	Santistevan Creek near Costilla.....	80
Rio Nambé, below Nambé Falls Dam, near Nambé.....	154	Sediment, definition of.....	7
Rio Nutria near Ramah.....	535-536	explanation of program.....	14
Rio Ojo Caliente at La Madera.....	147	Seepage investigations.....	584
Rio Paguete below Jackpile Mine, near Laguna.....	235	Santa Fe River.....	584
Rio Penasco, at Dayton.....	355	Vermejo River and Vermejo Ditch.....	581-583
near Dunken (crest).....	572	Seventysix Draw tributary near Waterloo (crest).....	573
Rio Pueblo de Taos, below Los Cordovas.....	125	Shiprock, San Juan River at.....	513-525
near Ranchito.....	122	Shoemaker, Mora River near.....	44
near Taos.....	119	Shumway Arroyo, near Fruitland.....	467
Rio Puercio, above Arroyo Chico, near Guadalupe.....	221	near Waterflow.....	468-474
near Bernardo.....	237-241	Sierra County, ground-water levels in.....	615-616
Rio Ruidoso, at Hollywood.....	336	Sierra County, quality of ground-water in.....	659-660
near Ruidoso (misc).....	579	Sili main canal at head.....	178
Rio Salado near San Acacia.....	242-243	Silva Creek at Silver City (crest).....	573
Rio San Jose, at Correo.....	236	Silver City, Silva Creek at.....	573
at Grants.....	230-231	Sixmile Creek near Eagle Nest.....	32
near Grants.....	233-234	Socorro County, quality of ground water in.....	661-668
Rio Tularosa near Bent.....	405-410	Socorro main canal north at San Acacia.....	244
Rito de los Frijoles in Bandelier National Monument.....	171-172	Sodium adsorption ratio, definition of.....	7
Rocky Arroyo, above Two Rivers Reservoir.....	342	Solute, definition of.....	7
below Rocky Dam, near Roswell.....	343	Solution, definition of.....	7
Rocky Arroyo at highway bridge, near Carlsbad.....	364	South Seven Rivers near Lakewood.....	362
Roosevelt County, ground-water levels in.....	613-614	Special networks and programs.....	10
Roswell, North Spring River at (crest).....	572	Specific conductance, definition of.....	7
Rio Hondo near.....	341	Spring Creek at La Boca, CO.....	414
Rocky Arroyo near.....	343	Springer, Cimarron River at.....	39
Two Rivers Reservoir near.....	340	Stage-discharge relation, definition of.....	7
Ruben Canyon near Gobernador (crest).....	575	Star Lake Trading Post, Chaco Wash near.....	475-480
Running Water Draw near Clovis (crest).....	568	Papers Wash near.....	222-224
Salazar ditch at Hernandez.....	151	Steins Creek at Steins (crest).....	578
Salt Creek tributary near Roswell (crest).....	571	Stevens Arroyo near Kirtland (crest).....	576
San Acacia, Rio Grande conveyance channel at.....	245-251	Streamflow, definition of.....	7
Rio Grande floodway at.....	252-256	Substrate, definition of.....	7
Rio Salado near.....	242-243	Sumner, Lake, near Fort Sumner.....	324-325
Socorro main canal north at.....	244	Sumner Dam, Pecos River below.....	326-331
San Augustin Plains Basin, crest-stage partial-record station in.....	575	Surface area, definition of.....	7
San Cristobal Arroyo near Galisteo (crest).....	568	Surface-water data, accuracy of.....	13
San Felipe, Rio Grande at.....	185-189	collection and computation of.....	11
San Francisco River near Alma.....	561	Surficial bed material, definition of.....	8
near Glenwood.....	562-564	Surveillance program, explanation of.....	10
near Reserve.....	559	Suspended, recoverable, definition of.....	8
San Ildefonso, Rio Grande at Otowi Bridge, near.....	155-170	Suspended, total, definition of.....	8
San Jose Arroyo near Monticello (crest).....	570	Suspended sediment, definition of.....	7
San Juan County, quality of ground water in.....	648-659	Suspended sediment concentration, definition of.....	7
San Juan lateral above San Juan Pueblo.....	133	Suspended sediment discharge, definition of.....	7
San Juan Pueblo, Rio Grande above.....	133	Suspended sediment load, definition of.....	7
San Juan Pueblo ditch above San Juan Pueblo.....	133	Swingle Canyon near Datil (crest).....	575
at Farmington.....	442-446	Talpa, Rio Chiquito near.....	124
at Four Corners, CO.....	526-533	Rio Grande del Rancho near.....	123
at Hammond Bridge, near Bloomfield.....	422-429	Taos, Rio Fernando de Taos near.....	121
at Shiprock.....	513-525	Rio Grande below Taos Junction Bridge, near.....	126-129
near Archuleta.....	416-418	Rio Pueblo de Taos near.....	119
near Bluff, UT.....	534	Taos County, ground-water levels in.....	616
near Caracas, CO.....	411	Taos County, quality of ground water in.....	669-670
near Fruitland.....	459-466	Tarhole Canyon near Galisteo (crest).....	569
San Juan River basin, crest-gage partial-record stations in.....	575-576	Taylor Canyon tributary near Bingham (crest).....	574
gaging station records in.....	411-534	Taylor Springs, Canadian River near.....	40
water-quality miscellaneous sites in.....	591-593	Taxonomy, definition of.....	8
water-quality partial-record stations in.....	585-587	Techniques of water-resources investigation, list of.....	15
San Marcial, Rio Grande conveyance channel at.....	257-262	Teolote Creek at Tacolote (crest).....	570
Rio Grande floodway at.....	263-280	Teec-ni-di-tso Wash near Burnham.....	494-496
San Mateo Creek near San Mateo.....	229	Terms, definition of.....	2-8
San Pablo Creek near.....	217-220	Terrero, Rio Mora near.....	304-307
San Pedro Creek near Golden (crest).....	569	Tierras Amarilla, El Vado Reservoir near.....	140
Sanchez, Canadian River near.....	45-48	Tierra Azul ditch near Medanales.....	150
Sand Draw near Clayton (crest).....	568	Tijeras Arroyo, at Albuquerque (crest).....	569
Sand Draw tributary near Clayton (crest).....	568	below south diversion, near Albuquerque.....	203
Sandoval Canyon at Gallinas (crest).....	571	near Albuquerque.....	202
Sandoval County, ground-water levels in.....	614	Time-weighted average, definition of.....	8
quality of ground water in.....	648	Tons per acre-foot, definition of.....	8
Santa Cruz River at Cundiyo.....	152	Tons per day, definition of.....	8
Santa Fe, McClure Reservoir near.....	173	Torrance County, ground-water levels in.....	617-618

	Page		Page
Total, definition of.....	8	Valentine Martinez ditch near Abiquiu.....	150
in bottom material, definition of.....	8	Vaqueros Canyon near Gobernador (crest).....	575
recoverable, definition of.....	9	Variadero, Conchas River at.....	49
recoverable from bottom material.....	8	Vermejo River near Dawson.....	28-29
Total coliform bacteria, definition of.....	3	Seepage Investigation.....	581-583
Total load, definition of.....	8	Wirden, Gila River below Blue Creek near.....	558
Total organism count, definition of.....	5		
Total sediment discharge, definition of.....	7	Water analysis.....	13
Tramperos Creek near Stead (crest).....	567	Water temperature.....	13
Trementina Creek at Trementina (crest).....	567	Water quality at partial-record stations, analysis of.....	585-587
Tritium network, explanation of.....	10	Water-quality records, explanation of.....	13
Trout Creek at Luna (crest).....	577	Waterflow, Chaco River near.....	505-512
Tularosa River, above Aragon.....	560	Shumway Arroyo near.....	468-474
Tularosa Valley, crest-stage partial-record	578	Weighted average, definition of.....	4, 9
stations in.....	574	West Draw near Farmington (crest).....	576
gaging station records in.....	405-410	Wet mass, definition of.....	3
Tularosa Valley tributary, near Oscura (crest).....	574	White Oaks Canyon, at White Oaks (crest).....	574
near Orogrande (crest).....	574	near Carrizozo (crest).....	574
Twin Butte Canyon tributary near Roswell (crest).....	572	Willow Creek, above Heron Reservoir near Los Ojos.....	136
Two Rivers Reservoir near Roswell.....	340	below Heron Dam.....	139
		Willow Springs Canyon at Mimbres (crest).....	573
Una de Cato Creek below Throttle Dam near Raton.....	24-25	Winfield Morton Pump near Abiquiu.....	150
Union County, ground-water levels in.....	618-619	WRD, definition of.....	9
Ute Creek near Logan.....	52	WSP, definition of.....	9
Ute Reservoir near Logan.....	53-60		
		Yazzie Wash near Mexican Springs (crest).....	576
Valdez, Rio Hondo near.....	114	Yeso Creek near Fort Sumner (crest).....	571
Valencia County, ground-water levels in.....	619-620		
quality of ground water in.....	670-673	Zooplankton, definition of.....	6
		Zuni River above Black Rock Reservoir.....	537-539

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
<i>Length</i>		
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)
<i>Area</i>		
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)
<i>Volume</i>		
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)
<i>Flow</i>		
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)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

U.S. DEPARTMENT OF THE INTERIOR
Geological Survey
P.O. Box 26659
Albuquerque, NM 87125

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300
SPECIAL 4TH CLASS BOOK RATE

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF THE INTERIOR
INT 413

